610.5
WE
v.9
no.1-4

Q.

WESTERN MEDICAL RE-
VIEW.

This book has been DIGITIZED
and is available ONLINE.

TISSUE BUILDING
BY
BOVININE

BOVININE not only stimulates, but completely feeds the new born blood cells, carrying them to full maturity.

It increases the leucocytes and thereby most powerfully retards pathological processes.

As a food and nutrient it is ideal, requiring little or no digestion, and being at once absorbed and assimilated.

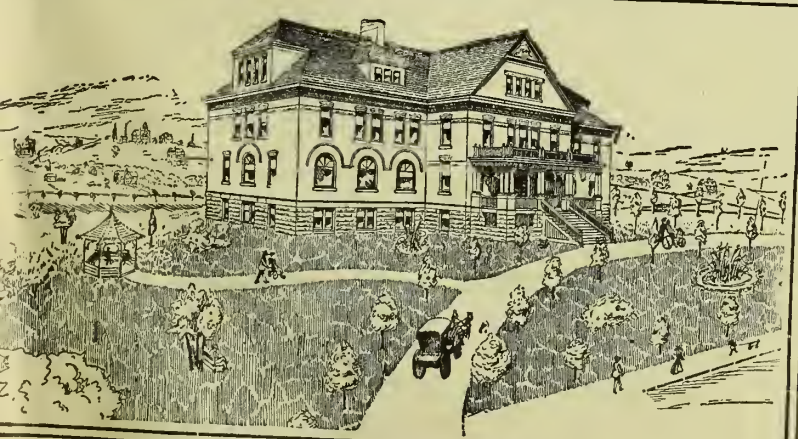
For starving anæmic, bottle-fed babies, its results are immediate and most gratifying.

It will be found equally reliable for nursing mothers, affording prompt nourishment and strength to both mother and babe.

Records of hundreds of cases sent on request.

THE BOVININE COMPANY
75 West Houston Street, NEW YORK

THE DR. BENJ. F. BAILEY
SANATORIUM



Not a hospital, not a hotel, but a home. The building is located on a sightly hill at Normal, and is reached by the cars of the Lincoln street railway, being only 23 minutes' ride from the business center of the city. It is thoroughly equipped and beautifully furnished. Every electric current useful in the treatment of the sick is used, and ideal Turkish, Russian, and Medicated Baths are given. Only non-contagious cases are received. For further information address

The B. F. BAILEY SANATORIUM, Lincoln, Neb

NEBRASKA STATE MEDICAL ASSOCIATION.

OFFICERS AND COMMITTEES, 1903-1904.

OFFICERS.

PRESIDENT—B. F. Crummer.... .....Omaha.
VICE-PRESIDENT—G. W. Shidler.....York.
VICE-PRESIDENT—P. E. Plumb.. .....Gothenburg.
RECORDING SECRETARY—A. D. Wilkinson.....Lincoln.
CORRESPONDING SECRETARY AND LIBRARIAN—
H. Winnett Orr .. ..Lincoln.
TREASURER—J. L. Greene .....Asylum.

COMMITTEES.

SCIENTIFIC WORK.

A. D. Wilkinson, *Chairman*.....Lincoln.
B. B. Davis.....Omaha.
W. D. Beattie.....Neligh.
J. M. Mayhew .....Lincoln.
J. M. Aikin.....Omaha.
A. B. Somers.....Omaha.
I. C. Philbrick.....Lincoln.

PUBLIC POLICY AND LEGISLATION.

A. S. von Mansfelde, *Chairman*.....Ashland.
F. D. Haldeman.....Ord.
C. L. Mullins.... ..... Broken Bow.
B. F. Crummer.....Omaha.
A. D. Wilkinson.....Lincoln.

PUBLICATION.

A. D. Wilkinson, *Chairman*.....Lincoln.
R. C. McDonald.....Fremont.
M. L. Hildreth ..... Lyons.

COUNCILORS.

1st District—B. B. Davis ..... Omaha.
2d District—A. R. Mitchell..... .....Lincoln.
3d District—J. W. Bullard.....Pawnee City.
4th District E. Tanner.....Battle Creek.
5th District—R. C. McDonald..... .....Fremont.
6th District—L. M. Shaw.....Osceola.
7th District—G. L. Pritchett..... Fairbury.
8th District—A. Lewis..... .....Valentine.
9th District—C. L. Mullins..... Broken Bow.
10th District—W. D. Shields.... .....Holdrege.
11th District—J. A. Andrews..... Eustis.
12th District—J. E. Moore.....Alliance.

SECTIONS.

SURGERY.

B. Davis, *Chairman*.....Omaha.
. Beattie, *Secretary*..... .....Neligh.

MEDICINE.

hew, *Chairman*..... Lincoln.
Secretary..... .....Omaha.

GYNECOLOGY AND OBSTETRICS.

airman.....Omaha.
retary .....Lincoln

DELEGATES TO A. M. A.

H. M. McClanahan, Omaha. A. B. Anderson, Pawnee Cit

SECRETARIES OF COUNTY SOCIETIES.

COUNTY.	SECRETARY.	ADDRESS.
Adams	R. R. Marble	Hastings.
Antelope	D. W. Beattie	Neligh.
Boone.	R. J. Murdock	Petersburg.
Box Butte	J. E. Moore	Alliance.
Boyd.	W. F. Craft	Gross.
Brown	G. O. Remy	Ainsworth.
Buffalo	G. M. Hull	Kearney.
Burt	I. Lukens	Tekamah.
Butler	H. R. Burdick	David City.
Cass	W. A. Alton	Elmwood.
Cedar	Morris Nielsen	Belden.
Cherry	M. P. McDowell	Merriman.
Clay	A. R. Ray	Fairfield.
Colfax	G. L. Dewey	Leigh.
Custer	C. L. Mullins.	Broken Bow.
Dawes	A. E. Wier	Chadron.
Dawson	P. E. Plumb	Gothenburg.
Dixon and Dakota	R. Q. Rowse	Wakefield.
Dodge	A. P. Overgaard	Fremont.
Douglas	J. M. Aikin	Omaha.
Fillmore	C. F. Morsman	Strang.
Franklin	U. H. Malick.	Bloomington
Frontier	Willis Wilson	Curtis.
Gage	I. N. Pickett	Odell.
Greeley	J. L. Brannen	Greeley.
Hall	J. C. Horton	Grand Island
Hamilton	I. W. Houghey	Aurora.
Harlan	J. N. Campbell	Stamford.
Holt	P. J. Flynn.	O'Neill.
Howard	F. S. Nicholson	St. Paul.
Jefferson	Warren Perry	Fairbury.
Johnson	C. K. Chubbuck	Tecumseh.
Kearney	S. J. Jones	Minden.
Knox	R. C. Burrell	Creighton.
Lancaster	H. W. Orr.	Lincoln.
Lincoln	V. Lucas.	North Platte
Madison	F. A. Long	Madison.
Merrick	J. E. Benton	Central City
Nance	D. M. Judkins	Fullerton.
Nemaha	W. E. Shook	South Auburn
Otoe	C. S. Crudup	Nebraska Ci
Pawnee	H. L. Akin	Du Bois.
Phelps	P. A. Sundburg	Holdrege.
Platte	J. C. McKinley	Humphrey.
Polk	L. M. Shaw	Osceola.
Red Willow	W. D. Mackechnie	Indianola.
Richardson	F. C. Wiser	Falls City.
Saline	E. Bates.	Crete.
Sarpy	E. C. Ruge	Springfield.
Saunders	M. A. Quincy	Ashland.
Seward	C. O. Petty.	Beaver Cros
Stanton	J. C. Watton	Pilger.
Thayer.	J. H. Boyes	Hebron.
Thurston	N. R. Smith	Pender.
Valley-Loup-Garfield	D. S Hogan	North Loup
Washington	G. A. Langstaff	Blair.
Wayne	W. H. Phillips	Carroll.
Webster	C. A. Creighton	Red Cloud.
York	J. W. Straight	Benedict.

The New York Polyclinic Medical School ....and Hospital....

214-220 East 34th St., New York City

FOUNDED IN 1881

Practical Post-Graduate Courses in all the Departments of Medicine and Surgery

THE DISPENSARY AND HOSPITAL annexed to the institution yield a variety of material for clinical demonstrations of the technic of major and minor surgical operations, the diagnosis and treatment of diseases. Modern methods in the special branches of each department are studied. Laboratory instruction in Pathology, Bacteriology, and Urinary Analysis. Classes in Operative Surgery and Electro-radio Therapy.

For further information address

Charles H. Chetwood, M. D.,
Secretary of the Faculty.

LINCOLN
Clinical Laboratory

DR. H. WINNETT ORR in Charge

LINCOLN, NEBRASKA

Accurate records are kept of all examinations, and copies can be had at any time. When so desired extra slides can be had of specimens prepared.

Packages for shipment of any specimen furnished on request. Physicians are especially urged to write for our sterile tubes for collecting pus or fluids for examination.

A discount of 20 per cent. is allowed for remittance with specimen or within three days of report. A still further discount allowed to regular patrons.

K & O. DOUCHE FOR THE APPLICATION OF GLYCO-THYMOLINE TO THE NASAL CAVITIES

GLYCO-THYMOLINE

FOR

CATARRHAL CONDITIONS

Nasal, Throat
Intestinal
Stomach, Rectal
and Utero-Vaginal

KRESS & OWEN COMPANY,
210 FULTON STREET NEW YORK ILLINOIS.

ALLOUEZ

Bi=Magnesia Spring Water

The Natural Remedy for Glycosuria, Diabetes, Nephritis, Bright's Disease, Rheumatism, Gout

• • • • EVIDENCE IN DIABETES • • • •

S. BARUCH, A. M., M. D., Lexington Ave. and 79th St., New York city:
"I have used the Allouez Magnesia water in a number of cases of diabetes with good results."

L. W. HAWK, M. D., Rochester, N. Y.:
"I employed Allouez Magnesia very satisfactorily in albuminuria during pregnancy."

EDGAR A. FISHER, M D., Worcester, Mass.:
"A valuable adjuvant in diabetes mellitus and diseases of the kidneys and urinary organs."

W. F. HONAN, M. D., Sherman Sq., New York:
"The Allouez Magnesia water produced prompt disappearance of the sugar with consequent lowering of the gravity. The ages of the patients treated ranged from 40 to 81 years. Some had diabetes for four years. I am much pleased, doctor." (Letter to Dr. Egbert Guernsey, New York city.)

PROF. CLIFFORD MITCHELL, A. M., M. D., Chicago:
"Inasmuch as many of the patients, who have been cured by the water, had resisted the action of jumbul, arsenic, lithia, and codeine, I ask, IS IT A DISCOVERY IN THE THERAPEUTICS OF DIABETES?"

MORRIS HALE, M. D., Hot Springs, Ark.:
"Allouez Magnesia water has given me invaluable aid in the treatment of diabetes mellitus."

L. A. KENGLA, M. D., San Francisco:
"A splendid remedy in Bright's disease, diabetes, and uric acid excess."

Brochure of Medical Endorsements on request.

(Still: Half-Gals.) Sparkling: Pints, Quarts, Splits.

ALLOUEZ MINERAL SPRING CO., (P. O.) Green Bay, Wis.

Chicago Office, 1129 Masonic Temple.

DISTRIBUTERS

New York: H. T. Hodgskin, 68 Broad St.
Philadelphia: Kaiser & Co.
Detroit: G. & R. McMillan.
Washington: Kaiser & Co.
St. Louis: Meyer Bros. Drug Co.
Montreal: Fraser, Viger & Co.
Buffalo: Kempff Bros., 357 Genesee
Pittsburg: Boericke & Tafel.
New Orleans: Finley Dicks Co.
Cincinnati: J. R. Peebles & Sons.
Worcester, Mass.: W. S. Pratt.
Hamilton, Ont.: Balfour & Co.
Cleveland: Chandler Rudd Co.
Atlanta, Ga.: J. B. Daniel.
Omaha: Sherman & McConnell Co.
Denver: Scholtz Drug Co.
San Francisco: D. M. Fletcher, Geary St.
Boston: S. S. Pierce Co.
Los Angeles: F. W. Braun & Co.
New Westminster, B. C.: H. Freeman.
Toronto: Lyman Bros. Co.

"But I do know that with it (thialion) I have been able to lessen the acidity and lower the specific gravity of the urine more rapidly than by any other means. * * * The bowels are put in a condition of normal activity."

Extract from a clinical lecture delivered at the Clinical and Pathological School of the Cincinnati University, at the Cincinnati Hospital. Published in Gaillard's Medical Journal, January, 1899, by Chas. A. L. Reed, A. M., M. D., ex-President American Medical Association; Gynecologist to the Cincinnati Hospital, ex-Secretary-General of the First Pan-American Medical Congress.

THE VASS CHEMICAL COMPANY, INC.,
DANBURY, CONNECTICUT, U. S. A.

Reprints of Articles . . .

Appearing in this issue of the WESTERN MEDICAL REVIEW will be furnished by the printers, THE STATE JOURNAL CO., at the following rates:

	With Cover	Without Cover
100 4-page reprints	$3 00	$2 00
250 4-page reprints	3 50	2 50
500 4-page reprints	4 50	3 00
1000 4-page reprints	6 50	4 00
100 8-page reprints	4 00	3 00
250 8-page reprints	4 50	3 50
500 8-page reprints	6 00	4 50
1000 8-page reprints	8 00	5 50
100 12-page reprints	5 00	4 00
250 12-page reprints	5 50	4 50
500 12-page reprints	7 25	5 75
1000 12-page reprints	9 00	6 50
100 16-page reprints	5 50	4 50
250 16-page reprints	6 25	5 25
500 16-page reprints	8 00	6 50
1000 16-page reprints	11 00	8 50
100 24-page reprints	9 00	8 00
250 24-page reprints	10 00	9 00
500 24-page reprints	13 00	11 50
1000 24-page reprints	17 00	14 50

Express charges to be paid by consignee. Size of page, 5 x 7¾; printed on good paper. Orders must be placed immediately on receipt of current issue of REVIEW, while type is still standing. In ordering, always state if reprint is desired with or without cover.

State Journal Co.,

Printers, Engravers, and Lithographers,

LINCOLN, NEBRASKA.

POST-GRADUATE

Medical School and Hospital . . . . .

OF CHICAGO

2400 Dearborn St.

Actual Clinical Work with Abundant Material and Small Classes.

The facilities for Post-Graduate teaching are thorough and complete in all departments, including HOSPITAL, CLINICAL, and LABORATORY advantages that are not excelled anywhere. Students can matriculate with equal advantage at any time.

Laboratories are under the direct supervision of Prof. Theo. Edwin Klebs.

For Illustrated Announcement, address the Secretary,

FRANKLIN H. MARTIN, M. D.,

2400 Dearborn Street. CHICAGO, ILLINOIS.

THE WORLD'S EYE IS UPON THE AMERICAN CHEMICAL

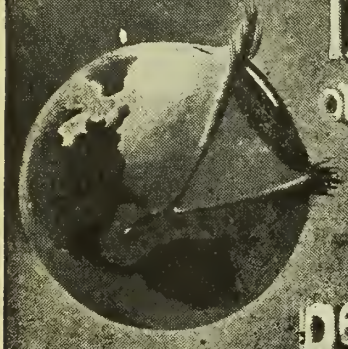
UR-A-SOL

(ACETYLMETHYLENE DISALICYLIC ACID)

IN THE TREATMENT OF

RHEUMATISM, GOUT, INFLUENZA, PNEUMONIA

or wherever any SPECIFIC BACTERIUM or URIC ACID POISONING is to be counteracted and eliminated;



Because of its { ANTISEPTIC, ANALGESIC, DIAPHORETIC & URIC ACID SOLVENT PROPERTIES.

THERMOL

IODOMUTH

GUAIALIN

Possesses all the virtues of Salicylic Acid and Formaldehyde without any of their faults.

DOES NOT DISTRESS THE STOMACH

LIBERTY CHEMICAL CO.
2555-59 N. SYDENHAM ST. PHILA.

SEND $1 MONEY ORDER AND WE WILL SEND LIBERAL SAMPLE AND HIGH GRADE ONE MINUTE CLINICAL THERMOMETER FREE.

UROTROPIN

the safest and most efficient urinary antiseptic, uric acid solvent, and prophylactic in genito-urinary instrumentation and typhoid. Its literature comprises more than 200 reports from eminent practitioners on both continents.

Schering's Formalin Lamp

SIMPLE—CONVENIENT—SAFE

A powerful auxiliary in the treatment of catarrhs, whooping cough, influenza, diphtheria, measles, scarlatina, small-pox, etc. It renders the infection shorter and milder, and lessens the danger of contagion. Evolves 100% of pure formaldehyde gas, while wood alcohol lamps produce less than 5% formaldehyde, the rest being wasted as CO and CO_2. The vaporization of the Formalin Pastils can be regulated at will and perfect deodorization may be effected without discomfort to the patient.

FORMALIN-SCHERING (the standard 40% formaldehyde solution) should be specified when the liquid is to be used, to prevent the substitution of inferior brands of varying strength.

SUBLAMINE

A SURGICAL DISINFECTANT indicated in all cases where sublimate is used. Its advantages are **Absolute Non-Irritancy, Deeper Penetration, Ready Solubility, etc.** Bacteriologically tested and recommended by the highest authorities.

LITERATURE ON APPLICATION

SCHERING & GLATZ, Sole Agents, New York

THE GOODNESS ISN'T THE GREASE

There are just two things about ***Cod Liver Oil***—goodness and grease. It used to be thought you couldn't get the goodness without the grease. That's wrong. The goodness isn't the grease. It is no more necessary to swallow the nauseous grease of ***Cod Liver Oil*** to get the valuable principles, than it is to eat the shell of an egg to get the meat.

Right there you have the whole secret of the incalculable value of

Hagee's Cordial of Cod Liver Oil Comp.

In separating the grease from the valuable properties, nothing is lost in the process. You get all that ***Cod Liver Oil*** is famed for, joined with the hypophosphites of lime and soda in a pleasant cordial, without a trace of the dreaded taste. Instead of being greasy, it is delightful to take. Instead of a fishy smell, it has an appetizing odor.

HAGEE'S CORDIAL is not a patent medicine. There's nothing mysterious about it. We have simply taken a disagreeable but good remedy. and made it better by making it palatable. Formula on every bottle.

PRESCRIBE

CORD. OL. MORRHUÆ COMP. (Hagee)

AND JUDGE OF THE MERITS BY RESULTS.

Put up in 16-oz. bottles only. Never sold in bulk.

Katharmon Chemical Co.,

ST. LOUIS, MO.

ANTIPHLOGISTINE

CELLULITIS

"I have used Antiphlogistine with excellent results in various forms of cellulitis. Therefore I think all medical men ought to know of its great value in every type of inflammation; so give my testimony to its great value, for the benefit of my medical brethren. I have the greatest confidence in it for every inflammatory ailment."

————, L. K. Q. C. P. I., L. R. C. I., L. M.

UNQUESTIONED VALUE

"I not only believe but know that as a therapeutic agent Antiphlogistine is of unquestioned value in pneumonia." ————, M. D.

SYNOVITIS

"For synovitis, Antiphlogistine is ideal. It supports the joint, reduces swelling, hastens absorption and relieves the pain." ————, M. D.

REPLACES ALL POULTICES

"I can frankly say Antiphlogistine has been very satisfactory, and it has taken the place of the old flaxseed poultice, where it would be impossible to apply the latter, especially to those patients who attend to business during treatment. In lymphangitis, suppurated buboes, and deep-seated inflammation, Antiphlogistine has always given excellent results." ————, M. D.

KEEP IT ON HAND

"Have used Antiphlogistine for boils, infected wounds, pleurisy and pneumonia, with splendid results. I shall always keep it on hand." ————, M. D.

GYNECOLOGICAL

"In all catamenial irregularities, Antiphlogistine merits every physician's confidence." ————, M. D.

PERIOSTITIS

"I use Antiphlogistine in all phlegmons, periostitis and pulmonary congestion." ————, M. D.

ACUTE INFECTION

"In acute gastritis and cellulitis, Antiphlogistine is the very best topical application." ————, M. D.

FOR ALL INFLAMMATION

"Antiphlogistine is 'par excellence' for all inflammation." ————, M. D.

NEURALGIA

"Results with Antiphlogistine in intercostal neuralgia were most satisfactory." ————, M. D.

APPENDICITIS

"I used Antiphlogistine in three cases of orchitis with prompt and excellent results. Threatened 'frog-felon' aborted with Antiphlogistine, and similar happy results in a case of appendicitis" ————, M. D.

PLEURISY

"It is not necessary for me to say what I think of Antiphlogistine, because I always use it in every case of pleurisy, bronchitis and pneumonia." ————, M. D.

PNEUMONIA

"As a poultice-jacket in pneumonia, Antiphlogistine has no equal." ————, M. D.

The Denver Chemical Mfg. Co.

LONDON DENVER NEW YORK

Walnut Hill Sanitarium

Corner Thirty-Third and Burt Sts., OMAHA, NEB.

Devoted Exclusively to the Treatment of Narcotic and Alcoholic Addictions and Special Nervous Cases. Conducted on Strictly Ethical Lines.

S. L. BROWN, M. D. **Phone 3476**

University of Illinois

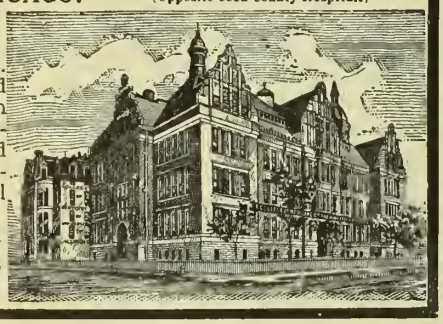
College of Physicians and Surgeons

of CHICAGO. (Opposite Cook County Hospital.)

FALL TERM BEGINS OCTOBER 1st.

Four years course. Students permitted to specialize in electives. Completely equipped Laboratories. Unsurpassed clinical advantages.

Dr. Frank B. Earle, Sec'y Congress and Honore Sts Chicago.



DR. LAURA J. BROWN

HAS ESTABLISHED THE

LINCOLN LABORATORY OF

Electro-Therapy & Radiography

1240 O STREET, LINCOLN, NEB.

Telephone B 672 Hours: 10 to 12 A. M.; 2 to 4 P. M.

Special attention given to the treatment of Cancer, Lupus, Eczema, Tuberculosis, etc., by the X-Ray. Bright's Disease and Neurasthenia by Static, Women's Diseases by Galvanic, Paralysis by Faradic Electricity.

EVERY COURTESY EXTENDED TO THE MEDICAL PROFESSION.
Inspection of work invited. Correspondence solicited.

New Orleans Polyclinic

Seventeenth Annual Session Opens November 2d, 1903, and Closes May 28th, 1904.

Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory work. For further information address

New Orleans Polyclinic,

POST-OFFICE BOX 797, NEW ORLEANS, LA.

H. GIFFORD, M. D. GEO. H. BICKNELL, M. D.

Practice Limited to Diseases of the Eye, Ear, Nose, and Throat

Karbach Block, Fifteenth and Douglas Streets, Omaha, Neb. Tel. 739.

DR. R. D. MASON

Rectal and Pelvic Surgery

Author of "The Office Treatment of Rectal Diseases." Price $1.50.
OMAHA, NEBRASKA.

Telephones: Office, 1532; Residence, 2707 Long Distance. Office Hours, 10 to 12 a. m., 2 to 5 p. m. Sabbath by appointment only.

....DR. J. M. AIKIN, NERVOUS AND MENTAL DISORDERS....

Office, Brown Block, Sixteenth and Douglas Streets, Omaha, Neb.

Dr. Charles C. Allison

SURGERY AND GYNECOLOGY

Telephones 156 and 220 ***Omaha, Nebraska***

Tel. { Residence, 426 / Office, - - 888 **. . . Nervous and Mental Diseases**

S. K. SPALDING, M. D.

Office McCague Building, Fifteenth and Dodge Streets. Omaha, Neb.

DR JOHN PRENTISS LORD — Tel. Office 33, Res. Long Distance 966

DR. FREDERICK RUSTIN — Tel. Office 33, Res. Long Distance 2404

DRS. LORD AND RUSTIN

Practice limited to **General Surgery.** Paxton Block, Sixteenth and Farnam Streets, Omaha, Neb. Office hours, afternoons and by appointment.

PATHOLOGY AND BACTERIOLOGY

W. R. LAVENDER, M. D.

Office 5-6 Continental Blk. Residence 2208 Burt St. Tel. 1292. Omaha, Neb.

SOLON R. TOWNE, A. M., M. D.

Contagious Dis. Hygiene Sanitation

Telephones No. 1065 and No. F 330. ***Omaha, Nebraska***

DR. JAMES L. GREENE

Superintendent of the Nebraska Hospital for the Insane, Lincoln, will visit, in consultation, when called by physicians, cases of

BRAIN OR NERVE DISEASES

F. E. COULTER, M. D., Omaha, Neb.

LATE Assistant Sir W. R. Gowers, M. D., F. R. S., London. Professor Clinical Neurology Creighton Medical College. Neurologist St. Joseph Hospital, etc., etc. Practice limited to Nervous Diseases. Office McCague Bldg.

Drs. W. O. and E. C. Henry

SURGEONS AND GYNECOLOGISTS

Rooms 402 3-4 McCague Building. Telephone F 2703. ***Omaha, Nebraska***

Dr. H. B. Lemere, 309 Paxton Block, Omaha, Neb.

Long Distance Telephone 685. Residence Black 2911. Hours 9 to 12, 2 to 5.

Practice limited to **Eye, Ear, Nose, and Throat**

DR. W. H. CHRISTIE Office, rooms 48 and 49 Barker Block, Omaha. Telephone Residence 479, Office 872, connects with long distance telephone. Special attention to Diagnosis, Consultation and ... INTERNAL MEDICINE

DR. B. W. CHRISTIE in Charge of Laboratory.

LINCOLN CLINICAL LABORATORY . . . .

Examinations of Urine, Sputum, Blood and Tissues, Microscopical and Chemical, of all kinds to assist in diagnosis.

H. WINNETT ORR, M. D. L. D. Telephone B 953. LINCOLN, NEB.

DR. C. W. POLLARD

Chemical and Microscopical Examinations of Urine, Sputa, Blood, Tumors, Stomach Contents. : : : : :

Phones: Office 682, Residence 2886. 409 Paxton Block, Omaha, Neb

---

My Specialty Is "Stomach Diseases." Prof. of same Creighton College.

R. E. SCHINDEL, M. D., South Omaha, Neb.

Office 415 North Twenty-fourth Street. Residence Twenty-second and J. Phones (Bells) Office 1392, Res. 4292. Hours 10 to 12 a.m., 1 to 3 and 7 to 8 p.m.

F. S OWEN, M. D. 209 Karbach Block, Cor. 15th & Douglas **Omaha**

Practice Limited to the Eye, Ear, Nose and Throat

Office Hours: 9 a. m. to 12 m.; 1:30 to 4:30 p. m.; Sundays, 10 a. m. to 12 m.
Telephones: Office 324; Residence A2669.

Omaha-Florence Sanatorium, Florence, Neb.

One block west of electric car line. W. L. ROSS, Medical Superintendent, 2121 Lake street, Omaha. Long Distance Phone 1192. Wire or phone for nurses to give Massage, Hydriatic Treatment, and General Nursing.

Dr. A. P. Condon, Long Distance Phone 2918

GENERAL SURGERY,

Office, 311 N. Y. Life Building. ***Omaha, Nebraska.***

The Survival of The Fittest

To obtain immediate results in Anaemia, Neurasthenia, Bronchitis, Influenza, Pulmonary Tuberculosis, and during Convalescence after exhausting diseases employ

Fellows' Syrup of Hypophosphites

Contains—Hypophosphites of Iron, Quinine, Strychnine, Lime, Manganese, Potash.

Each fluid drachm contains the equivalent of 1-64th grain of pure strychnine.

Special Note—Fellows' Hypophosphites *is Never Sold in Bulk.*

Medical letters may be addressed to

MR. FELLOWS, 26 Christopher St., New York.

ECTHOL, NEITHER ALTERATIVE NOR ANTISEPTIC IN THE SENSE IN WHICH THOSE WORDS ARE USUALLY UNDERSTOOD. IT IS ANTI-PURULENT, ANTI-MORBIFIC--A CORRECTOR OF THE DEPRAVED CONDITION OF THE FLUIDS AND TISSUES.

SAMPLE (12-oz.) BOTTLE SENT FREE ON RECEIPT OF 25 CTS.

FORMULA:--Active principles of Echinacia and Thuja.

BROMIDIA
IODIA
PAPINE

BATTLE & CO., CHEMISTS CORPORATION, ST. LOUIS, MO., U.S.A.

THE REPUTATION MAKERS.

WHEN YOU USE THE SALICYLATES
RHEUMATISM
NEURALGIA
SCIATICA
LUMBAGO
GOUT
GRIPPE
ETC. ETC.
PRESCRIBE TONGALINE.

SAMPLES ON APPLICATION

MELLIER DRUG COMPANY.

ST. LOUIS.

CONSUMPTIVES ARE EXPERIMENTED UPON

WITH

Common Fish Oils, Vegetable Oils, Mineral Oils, so-called Cod Liver Oil Extractives
(Wines, Cordials, &c., with Iodine, Bromine, Sulphur, &c.)

LARGELY DUE TO THE

HIGH PRICE OF COD LIVER OIL.

PHYSICIANS CAN IMPLICITLY RELY UPON

PHILLIPS' EMULSION

Always containing 50% Purest Norwegian Cod Liver Oil* so treated as to be

ACCEPTABLE TO THE MOST DELICATE STOMACH.
PERFECTLY MISCIBLE WITH WATER, WINE, OR MILK.

PANCREATIZED, PALATABLE, PERMANENT.

*Standard absolutely maintained, with no advance in price.

610.5

WESTERN

MEDICAL REVIEW.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY PUBLISHED BY WESTERN MEDICAL REVIEW CO.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

H. WINNETT ORR, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska, post-office

VOL. IX, No. 1. LINCOLN, NEBRASKA, JANUARY 15, 1904. $2.00 PER ANNUM.

COMPULSORY PHYSICAL EDUCATION.

Several writers and speakers have referred to certain demoralizing influences that obtain in the present system of public education. The physical deformities that result from improperly constructed desks and seats, the various infirmities induced by improper sanitary construction of the school building in the lower grades, up through to the various bad effects due to different causes higher in the school, and even to college athletics, all have been more or less discussed and have been more or less imperfectly decided. Among the remedies suggested within recent years, and one which is to some extent already in use, is the systematic and properly directed physical education of the pupils. At the present time this is improperly done. Anyone with a proper understanding of the normal condition and the lines of the human body, has only to glance at a roomful of students in the first year of high school to know that many are in absolute and dire need of prompt and rigid physical instruction.

In very young children this need for exercise in the open air is gratified, as a rule (except where it is too much trouble for the mother to keep her child's clothing clean), by so-called play. Any normal boy or girl from the creeping age to about twelve years old, craves and usually secures plenty of exercise. In some homes restraint is placed upon indulgence in such pastimes. Especially in the case of girls it is not uncommon to find absolute prohibition of outdoor, fresh air play after the age of twelve. This may or may not account for the fact that so many girls from that age forward are the victims of hip and spinal deformities and for the additional fact that no one but expert dressmakers can make the young women of our day look symmetrical.

To begin at the beginning, if all the teachers in our public schools were so carefully instructed in the points that constitute and contribute to the formation of a symmetrical body, the daily exercises in the schoolroom could be made of such a character as to be more effective. Such exercises as are now given in the public schools are, as a rule, the merest makeshifts and in too many high schools and colleges, even when physical training is either urged or made semi-compulsory, it is participated in only by those who do it only for their enjoyment and because it makes them "feel better." There are a few institutions, certainly, in which the physical instruction has reached a stage where it is practically a science. Women and men, physically deformed or imperfectly developed, are properly examined and prescribed for most carefully, and it is seen to that the conditions of their prescriptions are fulfilled.

It is especially in the smaller towns and villages where the work now remains to be done. When the system is more thoroughly established in the country schools and smaller high schools, there will be fewer students at the university and a smaller percentage who never attain to the university who will be in need of corrective work or even past the stage where any general or physical training can remedy the damage wrought to their bodies and their health by carelessness, heedlessness or ignorance.

POPULAR MEDICAL INSTRUCTION.

One of the most potent reasons for the present epidemic of patent medicine taking and faith healing, and the popularity of the medical diploma mills, is the fact that the people at large have no adequate conception of the difference between a man who is properly a physician and any other man who calls himself a physician. Any six months' graduate of any of the schools recognized by some of the state boards of health may go into a city, tack up his name with the prefix of "Dr." and have equal chance of being called to a case of sickness or an emergency accident case which happens in his neighborhood, with the man who has spent years in preparing himself to practice his profession. The jealousy that exists to a certain extent in the medical profession everywhere is sufficient to account, in the minds of people of average mental ability, for whatever one physician may say against the ability of another. So, if a "Doctor" of Osteopathy comes to a city and announces himself as the advocate of a newly-discovered branch of medical treatment and he himself as one of the most successful graduates of the parent school, people in general do not know that the D. O. himself is a graduate of an extremely

inadequate school or that his method of practice, instead of being new as he claims, is simply a borrowed and comparatively small part of a whole system of medical practice, and a part which is not new but is almost as old as medicine itself. In the light of these facts, whatever tendency can be developed to inform the people at large about the actual facts of medicine and medical practice are tendencies, surely, which will aid them in discriminating between the man who is in truth a physician and one who is not.

For a number of years it has been the custom of one weekly periodical with which the writer meets occasionally, to publish at the head of one of its pages a short article of a somewhat popular nature on some medical subject. The Youth's Companion has taken up in turn and treated always with scientific accuracy and with an attitude of respect for the medical profession, subjects like the infectious diseases, one by one, accidents, injuries, sudden sicknesses, principles of diet both for the well and the sick and many other kindred subjects. These have been presented to the many readers of the Companion with a clearness that is always most admirable and with a spirit of fairness to the medical profession as distinguished from the irregular methods of practice which deserve a wider recognition from the profession itself.

Other lay periodicals may have the same willingness to supply their readers with information of this character. At any rate, it might be well for medical men everywhere to stimulate and encourage the publication and the wide dissemination of such literature.

MEDICAL COLLEGE STANDARDS.

In a conversation the other day Dr. Hektoen, of Chicago, made a statement that will bear frequent repetition to physicians and educators everywhere. He said that our medical colleges should be judged, not by their claims as to entrance requirements, nor by their equipment, either as to laboratory or clinical facilities, but by graduated students. And further, the graduates selected for a determination of the grade of instruction should be, not the best, but the worst. As Dr. Hektoen expressed it, there are always a certain number of students who enter a medical college a trifle deficient as to entrance requirements. These students barely scrape through the work of the first year and complete it perhaps without conditions; with the second and third years they have more trouble but manage to get through, always far behind their fellow-students. When the work of the senior year is completed, these men come up for their final examinations, having done inadequate work all through the four years and yet with all their credits; so that the faculty can hardly dare to refuse them their diplomas. These are the men by whom the different departments of the school may be judged, for they represent the real standards of the various departments.

Of course there is always this to be said, that when these men are refused promotion at the end of the first or second year, they may, if they choose, fall back upon some inferior college. And it will be no surprise to anyone for us to say that there is no school with standards so low but that one lower can be found for the man who is unequal to the requirements made of him in the higher school. If the American Association of Medical Colleges has not an examining committee whose duty it is to determine the requirements for membership, it should have. The writer has this to say, that there are now colleges in affiliation with the association whose standards are so far below the assumed standard of the association that membership is of no real value as a criterion of standing in the educational world.

Notes and News.

DR. MALCOLM, of Dallas, Wis., has gone to Canada.

DR. W. A. RUSH, of Walnut, Ia., has located in Lima, O.

DR. L. C. HOLMES, of Atlanta, Neb., is home from Chicago.

DR. MYERS, of Kirkman, Ia., has located in Portsmouth, Ia.

DR. FRANK BROWN, of Fremont, Neb., has moved to Omaha.

DR. SCHUTT, of Marion, N. D., has moved to McHenry, N. D.

DR. H. F. HEWITT, of Hawarden, Ia., has moved to Bristow, Neb.

DR. RAY SMITH has moved from Parkston, S. D., to Mitchell S. D.

DR. HILGER, of Mazeppa, Minn., has located in Pine Island, Minn.

DR. MARCUM has been appointed deputy coroner of Bermidji, Minn.

DR. O. A. OSTBY, of Fairmont, Minn., has moved to Minneapolis.

THE Wright County Medical Society met at Clarion, Ia., recently.

DR. BOWIE, of Table Rock, Neb., has returned from New Mexico.

DR. VAN NESS and wife visited in Lincoln, Neb., during the holidays.

DR. J. R. MCHUGH, of Gettysburg, S. D., has located in Custer, S. D.

DR. J. C. CUMMINGS, of Minneapolis, has located in St. Hilaire, Minn.

DR. MACINTOSH, of Montreal, Canada, has located in Deer Creek, Minn.

DR. W. H. LINCOLN, of Wabasha, Minn., has moved to Santa Barbara, Cal.

THE Butler County Medical Society met at Parkersburg, Ia., in December.

THE Keokuk County Medical Society met December 30 at Sigourney, Ia.

DR. T. O'CONNOR, of Maple Lake, Minn., died December 11 at Denver, Colo.

DR. J. H. ROBBINS will succeed Dr. C. M. Wade as coroner of Sioux City, Ia.

DR. O. B. JAMES and family, of Cloquet, Minn., have moved to Lansing, Mich.

DR. GUY C. RICH, of Sioux City, Ia., was married to Mrs. Katherine W. Nason.

DR. LUCIEN STARK, of Hyannis, Neb., was married recently to Miss Belle Guilfoil.

DR. HOMER HAMILTON, late of Bird Island, Minn., has moved to Two Harbors, Minn.

DR. GEORGE BROOKS, who has been practicing at Hannah, N. D., has located at Wales, N. D.

DR. J. W. WELLS, a St. Paul, Minn., physician and surgeon, has located in St. Peter, Minn.

DR. J. A. ANDREWS has returned from Chicago, where he has been taking post-graduate work.

DR. A. J. PLUMMER, of Hyannis, Neb., returned in December from an extended trip to Canada.

THE physicians of Union county (Iowa) have organized the Union County Medical Society.

DR. C. L. STOREY, a recent graduate of the Chicago University, has located at Hayward, Wis.

DR. D. F. HALLETT, of Emerson, Ia., was married recently to Miss Maud A. Minsker, of York, Neb.

DR. MABEL DUNN, of Asylum, Neb., visited her parents at Syracuse, Neb., during the holidays.

DR. EDWARD R. LINDNER, of Lake City, Minn., has gone to Chicago to take a post-graduate course.

DR. M. N. MCNAUGHTON, of Villisca, Ia., has sold his practice to Dr. F. S. Williams, of Chapman, Kan.

DR. J. F. AVERY, of Gregor, Minn., has returned from Chicago, where he has been taking a post-graduate course.

DR. EDSON RHODES, of Galesville, Wis., has associated with him in practice Dr. Mitchell, recently of Chicago.

DR. MARIE NIELSEN, of Omaha, a recent graduate of the Omaha Medical College, has located at Blair, Neb.

DR. RUDOLPH SCHIFFMAN, of St. Paul, Minn., will start in February for the far east, taking the western route.

DR. J. J. WARTA, formerly of Ord, but now of Sargent, Neb., was married in December to Miss Lois Wisda, of Ord.

DR. Ross, formerly of Fairmont, Minn., now located at Minneapolis, was married to Miss Lamb, of Fairmont.

THE Audubon County Medical Society held an interesting meeting at Audubon, Ia., about the middle of December.

MRS. FRANCIS E. CHUBBUCK, wife of Dr. C. W. Chubbuck, of Tecumseh, Neb., died suddenly of neuralgia of the heart.

DR. G. SCHMIDT has purchased the practice of Dr. G. F. Beachler and will locate permanently in New Ulm, Minn.

DR. L. L. HENNINGER is looking after the practice of Dr. Smart, of Blue Earth, Minn., while the later is in Arizona.

DR. B. H. CHEDECK, formerly engaged in the practice of medicine in Sioux City, Ia., has located at Winnetoon, Neb.

DR. S. E. SWEITZER, of Minneapolis, Minn., left a short time ago for Vienna, Austria, to take a special course in medicine.

DR. L. I. BURGON and Miss Jennie Logasa, of Ashton, Neb., were married in Omaha. Dr. and Mrs. Burgon will reside in Ashton.

DR. F. J. MAROTZ, of Sergeant Bluffs Ia who has been a practicing physician for the past twenty years, has moved to Honolulu.

DR. G. F. REINEKE and wife, who went to Germany last May, returned to their home in New Ulm, Minn., the latter part of December.

THE physicians of Cass county (Iowa) held a meeting December 29 for the purpose of organizing a Cass County Medical Society.

DR. J. N. MCCARTNEY, of Leeds, Ia., has located at Savannah, Mo. Dr. E. R. Wheeler has purchased the practice of Dr. McCartney.

THE annual meeting of the Iowa Association of Health Officers was held January 12 and 13. A banquet followed the first day's session.

DR. E. J. DOLAN, of Worthington, Minn., died by taking carbolic acid by mistake. He was a graduate of Bellvue Medical College of New York.

DR. E. O. WEBER, of Valparaiso, Neb., has sold his practice to Dr. Stephens, at one time a resident of Valparaiso, and has located in Fremont, Neb.

DR. A. M. WILLARD, of Dillon, Mont., has purchased the practice of Dr. J. C. Burton, of Missoula, Mont. Dr. Burton will locate in southern California.

DR. G. M. ANDREWS, of Stella, Neb., has left for Cordell, Okla., to attend his father-in-law, Dr. Opperman, who has been in failing health since July.

DR. CHRISTIAN JELSTRUP has returned from an extended trip through the northern country and has decided to locate permanently in St. James, Minn.

DRS. Van Buren Knott, J. N. Warren and William Jepson, of Sioux City, Ia., read papers at the meeting of the Western Surgical Association held in Denver.

DR. W. H. WOODS, at one time a resident of Blooming Prairie, Minn., died at the home of his daughter, Mrs. Jackson, in Owatona, Minn. He was eighty years of age.

DR. M. T. ZELLERS, of Hooper, Neb., has been appointed to succeed Dr. Brown, whose death occurred a short time ago, as member of the Dodge county pension board.

DR. LOUIS B. BUSHMAN, of Omaha, Neb., has accepted a position as surgeon to a platinum mining company at Palayo Rico, Ecuador, and has left Omaha for a stay of one year.

THE Adams County Medical Society was organized recently at Corning, Ia. The officers elected were: J. H. Wallahan, of Nodaway, president; C. H. Bryant, of Corning, secretary and treasurer.

THE Page County Medical Society held its regular quarterly meeting in Coin, Ia., on December 24. The next meeting of the society will be held in Clarinda on the third Thursday in March.

THE Adair County Medical Society was organized in December at Greenfield, Ia. The officers of the society are T. W. Mulhern, president; J. E. Howe, vice-president; P. McDermid, of Fontanelle, secretary.

THE Marshall County Medical Society held its first meeting at Marshalltown, Ia. The officers of the society are Drs. N. E. Mighell, president; N. W. Getz, vice-president, and W. S. Devine, secretary and treasurer.

THE Saline County Medical Society met recently at Crete, Neb., and elected the following officers: Drs. Goodell, Wilber, president; Pallett, Crete, vice-president; Brown, Friend, secretary; Hewett, Friend, treasurer.

AT a meeting of the physicians of Mills county (Iowa) the Mills County Medical Society was formed. The officers elected are: President, C. H. DeWitt, Glenwood; vice-president, S. A. Campbell, Malvern; secretary, Dr. Benson, Glenwood; treasurer, W. R. Whitnall, Hastings.

THE Iowa state university's new medical school has just recently been completed so as to be turned over to the school. The new buildings when completed will cost about $125,000. Practically every vestige of this department of the institution was wiped out by a fire two years ago.

THE Montgomery County Medical Society held its semi-annual meeting at Villisca, Iowa, in December. Officers were elected as follows: President, Dr. A. Carson Elliott; vice-president, Dr. A. A. Ashby, Red Oak; secretary, Dr. W. F. Lomas, Villisca; treasurer, Dr. Childs, Villisca.

THE Lee County Medical Society held its third annual meeting at Fort Madison, Ia., December 22. The officers of the society are: F. C. Roberts, Fort Madison, president; F. M. Fuller, Keokuk, vice-president; John Downs, Fort Madison, secretary; W. E. Sloat, Denmark, treasurer.

THE South Dakota Board of Medical Examiners, at its meeting in Sioux Falls, S. D., January 13, determined to enforce the new law, enacted by the last legislature, which is designed to put "quacks" out of business. The meeting was held chiefly for the examination of candidates for license to practice medicine and surgery in South Dakota.

THE physicians of Plymouth county met a short time ago and organized the Plymouth County Medical Society. The officers elected are as follows: Drs. M. W. Richey, LeMars, president; A. H. Jastram, Remsen, vice-president; G. H. Mammen, LeMars, secretary; H. J. Wright, Kingsley, treasurer. The meetings of the society will be held quarterly.

THE second regular meeting of the Yankton District Medical Society was held at Vermillion, S. D., on December 30. About fifteen physicians from the counties of the district were present. The election of officers resulted in the selection of Dr. Gyllenhammer, of Gayville, as president; Dr. Cruickshank, of Vermillion, vice-president; Dr. Stewart, of Irene, secretary and treasurer.

AT a meeting in Sioux Falls, S. D., a number of physicians of South Dakota organized the Medical Society of the Seventh District of South Dakota. The following officers were elected for the coming year: President, Dr. Stephen Olney, Sioux Falls; vice-president, Dr. A. H. Tufts, Sioux Falls; secretary, Dr. John R. Hawkins, Sioux Falls. The society will hold regular meetings in Sioux Falls on the first Monday in each month.

Book Reviews.

SAUNDERS' MEDICAL HAND-ATLASES. Atlas of the External Diseases of the Eye. By Prof. Dr. O. Haab, of Zurich. Second edition, thoroughly revised. Edited, with additions, by G. E. De Schweinitz, A. M., M. D., Professor of Ophthalmology in the University of Pennsylvania. With 98 colored lithographic illustrations on 48 plates, and 232 pages of text. Price, $3, net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

This atlas is a translation from the work of Dr. O. Haab. The first edition appeared in 1899 and was in form and contents similar to this, only revisions and additions have been added when necessary. One of the principal objects in these atlases is to afford a substitute for clinical observations and this is materially aided by the numerous chromo-lithographic plates. The text gives a clear description of the more important diseases and their treatment. C. W. M. P.

A NON-SURGICAL TREATISE ON DISEASES OF THE PROSTATE GLAND AND ADNEXA. By George W. Overall, A. B., M. D., formerly Professor of Physiology in the Memphis Hospital Medical College. Chicago: Marsh & Grant Co., Publishers.

In this little volume the author discusses the diseases of the prostate, dividing them into acute, subacute, congestive, tubercular and syphilitic prostatitis, senile hypertrophy and neurosis. The larger portion of the work is devoted to his methods of treatment of these conditions and clinical histories of cases coming under his observation. The only points of interest in treatment is the use of electrolysis and cataphoresis by means of instruments devised by himself. In senile hypertrophy he condemns the Bottini operation and advocates broad cauterization under cocaine instead; then when granulations are formed medicine is drawn into the prostate by cataphoresis. Neuroses are treated by electricity and an appendix of thirty pages is devoted to electro thereapeutics. C. W. M. P.

A DICTIONARY OF MEDICAL SCIENCE. Containing a Full Explanation of the Various Subjects and Terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, etc. By Robley Dunglison, M. D., LL. D. Twenty-third edition, thoroughly revised, with pronunciation, accentuation and derivation of the terms, by Thomas L. Stedman, A. M., M. D. Philadelphia and New York: Lea Bros. & Co. 1903.

A work which has been before the profession for three quarters of a century scarcely needs review. The present revised edition is a work of 1200 pages, judiciously illustrated and modern in every particular. In revision and addition of new matter the editor has not changed the characteristics of the work, but the volume still stands not only as a dictionary of medical terms but as an epitome of the existing condition of medical science. In this edition the older members of the profession will still recognize a familiar work and the younger physicians will find a concise modern dictionary. C. W. M. P.

BOOKS RECEIVED.

Progressive Medicine, Vol. IV, December, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 434 pages, 46 illustrations. Philadelphia and New York: Lea Bros. & Co., Publishers.

PAMPHLETS RECEIVED.

The Treatment of Nevi. By P. J. Lord, M. D., Omaha. (Reprint from the Western Medical Review, September, 1903.)

Meatotomy Plus Meatorrhaphy. By J. P. Lord, M. D., Omaha. (Reprint from the Journal of the American Medical Association, October 31, 1903.)

A Table of Ocular Extrinsic Paralyses. By H. M. Starkey, M. D., Chicago. (Reprint from the Journal of the American Medical Association, November 23, 1903.)

The Use of a Mydriatic After the Age of Forty-Five. By H. M. Starkey, M. D., Chicago. (Reprint from the Journal of the American Medical Association, April 18-25, 1903.)

First Dressing on the Battlefield. By N. Senn, M. D., Ph. D., LL. D., Chicago. (Reprint from the Journal of the Association of Military Surgeons of the United States.)

The Surgical Treatment of Traumatic Hemorrhage of the Spleen. By N. Senn., M. D., Chicago. (Reprint from the Journal of the American Medical Association, November 21, 1903.)

Acute Epiphysitis Causing a Condition Subsequently Simulating Congenital Hip Misplacement. By J. P. Lord, M. D., Omaha. (Reprint from the Journal of the American Medical Association, August 1, 1903.)

Omental Anastomosis, or Operations for Establishing a Collateral Circulation of the Portal Blood; A Successful Schiassi Operation. By J. P. Lord, M. D., Omaha. (Reprint from the Western Medical Review, September, 1903.)

Original Articles.

FURTHER EXPERIENCE IN THE USE OF THE X-RAY IN MALIGNANT DISEASE.

BY JOHN PRENTISS LORD, M. D.,

OMAHA, NEB.,

PROFESSOR OF SURGERY AND CLINICAL SURGERY, CREIGHTON MEDICAL COLLEGE; ATTENDING SURGEON, ST. JOSEPH'S HOSPITAL; CONSULTING SURGEON, SOUTH OMAHA HOSPITAL.

When the writer began the use of the X-ray for the treatment of malignant diseases nearly four years ago, the treatment may said to have been in the experimental stage. In May, 1902, at the meeting of the State Medical Society, the writer was able to report some success along with a few failures, which latter were for the most part hopeless at the outset, the treatment having been undertaken as a last resort. All of this class died. With better selected cases, however, and with a better understanding of the application of this treatment, progress has been made and more encouraging results secured. With better comprehension of the limitations of this treatment, it has been applied, for the most part, to superficial cases, and as an adjunct in operative cases, where it seemed desirable to insure the destruction of any superficial outlying outposts of the disease.

In no instance has the writer undertaken the treatment of breast cancer by the X-ray alone, but has uniformly recommended the excision of the growth by the usual radical operation, to be followed by the X-ray exposures as a safeguard against the return of the disease.

It has been our practice for about two years in operating to save sufficient integument to permit of the apposition of the wound-surfaces instead of observing the rule of Halsted, to excise all integument overlying the mammary gland, we having depended upon the X-ray treatments to destroy any cancer cells remaining in the skin. This has saved the patient a disagreeable scar at the usual site of a skin-grafted surface. There can no longer be any question as to the efficiency of the X-ray treatment in destroying cancer so superficially located, and it is the writer's belief that this treatment is efficient in removing the remaining dis-

ease in the chest-wall and possibly the deeper parts. All forms of superficial cancer are now undertaken with perfect confidence, and in no instance has there been failure in cases of this class, except in those who have abandoned the treatment. The writer, however, has met with some encouragement in the treatment of disease more deeply located, and in this connection reports a case of orbital sarcoma, in a woman of 47, remaining cured since early in 1902.

A man of 70 had a growth on the malar bone for sixteen years. Last February we found a cauliflower-like tumor the size of an orange. The eye was closed; the nose was pushed to one side and the tumor extended to the angle of the mouth and involved the antrum. We regarded the disease as entirely too extensive for an efficient operation, or the successful use of the X-ray. We ligated the right external carotid and removed as much of the growth as possible, including the malar bone and the nasal process of the superior maxillary. The posterior wall of the antrum remaining was studded with cancer nodules. From the second day the X-ray was used. Later we removed the right eye to better enable us to reach the disease in the orbit. The X-ray was used constantly. At the time of the operation we saved the infiltrated skin over the nose and about the eye. Now no evidence of the disease remains. After a suitable waiting period we shall do the necessary plastic work for cosmetic purposes.

A woman of 42 years had for two years a growth involving the left parotid, now of large size. The pain and inability to separate the teeth more than half an inch finally drove the patient to accept our advice. We hesitated about advising an operation which would of necessity be one of horrible mutilation. She declined surgery. She wished the X-ray used, but we had little or no hope of benefit. However, it was used, for a period of three months. The case is now well. Of course it is somewhat unfortunate that in this, as well as some other cases, the diagnosis is unproven, dependence upon clinical evidence alone being necessary.

A man of 76, who has failed to be present, had a cancer of the lower eyelid, the size of a nutmeg, and beginning to break down had produced much eversion of the lower lid. The patient had been informed that the wisest course to pursue would be to remove the growth and use the X-ray afterward. The patient asked for the use of the X-ray first. The request was granted and the growth has been entirely removed without defect. We have found that the eye tolerates with little harm the necessary amount of exposure to the X-ray. The eyelashes are saved by protecting them with a thin strip of lead.

A man of 46 had a tumor of the right parotid removed twelve years ago. For a year there had been developing a tumor, now the size of a chestnut, in front of the ear. He was informed that an operation would almost surely cause a paralysis of face and lids. A trial of the X-ray was therefore requested. This was in February, last. In six weeks there was no evidence of a tumor remaining, and there is none now. Very vigorous treatment, at the patient's suggestion to my assistants, resulted in a severe burn, which has permanently destroyed the pigment cells, leaving a blanched white spot the size of a silver dollar as an oasis in the dark skin of this individual. A suggestion of possible value for the treatment of a pigmented nevus.

A large number of facial cancers, including many lip epitheliomas, have been treated with entire success. Some were of considerable size. A recurrence would not be dreaded by the patient nor would it perturb the doctor, as in any other method of removal, and the patient would seek no other remedy.

A farmer of 60 presented a cancer involving the ear. There had been an ulcer and a fungous mass around the ear and the meatus. Plasters had been used repeatedly by several physicians. Much indurated cicatricial tissue was present which was impracticable of removal. Had it been attempted, the seventh nerve would have been injured. In this case, under the use of the X-ray, the induration has disappeared, and with it all evidence of disease. I have not dared, so far, to use any plastic surgery, for fear of covering up some cancer cells. This case also especially illustrates the value of this treatment.

In a very similar case, that of a man of 75, who had battled fifteen years with a cancer of similar character, though more extensive, the lower half of the ear having been destroyed, and the meatus and adjoining parts being filled with soft granulations, the writer sought to save time by curetting these away, and, by doing so, disturbed the branches of the seventh nerve and produced paralysis of the lids and muscles of that side of the face. The lids subsequently required suture to prevent an inevitable corneal ulcer. The remaining cancer was destroyed as in the preceding case.

Another man, of 65, with a cancer of the right malar prominence, which had been present for two years, has had ten exposures during the past two months. The growth is now but about one-tenth its former size, as shown by the photograph taken at the beginning of treatment.

A merchant of 44 years had had caustic used upon a superficial cancer of the lip two years prior to his consulting the writer, in the autumn of 1901. He then had an enlarged submaxillary gland which was dissected out, together with the lymphatics of the neck. The dissection showed that all the superficial structures of the neck were profoundly involved; too much so for thorough removal, and the X-ray was used many times with most excellent results. Conditions have been normal for nearly two years and there is now no suspicion of disease.

At the first this work was largely experimental, and there is still much to be learned; there is scarcely a month passes without some new experience, because the subject is becoming understood and its proper status established. At first enthusiasts claimed almost everything, but the profession now understands that there are limitations. The more conservative now testify that it accomplishes far more than they at first believed possible. I have realized from the first that it was chiefly applicable to superficial disease and we

have met with failure when we have undertaken too much. In hopeless cases time only is lost while using the X-ray, and this is unimportant, because they are too late for other known successful measures of treatment. It is my pleasure to be able to report that in many cases much more has been secured in results than could possibly have been anticipated.

The writer summarizes as follows:

All forms of superficial cancer can be most successfully treated by the X-rays. He believes there is less liability of recurrence in cases so treated than any other form of treatment.

Operations may be made less radical and remaining disease destroyed by this agency.

Hopeless, operative cases, after partial excision, may sometimes be cured by supplementing the operative procedure with X-ray treatments and thus reaching tissues beyond the reach of successful surgery.

Much mutilation may sometimes be avoided, and better cosmetic results secured by combining surgery and X-light treatments.

In cancer which involves the eyelid, nose, ear, or other organs, the removal of any portion of which would disfigure, may be cured by the use of the X-ray, without appreciable scar or blemish.

Burns are not always necessary to effect results. Growths may be stimulated by an improper application of this agent.

Sarcoma is thought to be more amenable to treatment than carcinoma, and hence may be treated through a greater thickness of tissue than carcinoma.

Very superficial carcinoma of the breast, as seen in some very thin subjects, can probably be successfully treated, the same as can the axillary glands in this same class of cases. The writer has not had a case favorable for this, and in every case excision has been recommended and the X-ray used subsequently. Any other course has been considered as a hazardous delay.

Much inefficient and ill-directed work is being done both because of ignorance in its use, and because of unsuitable apparatus, together with tubes unsuited to the case in hand.

THE FINSEN LIGHT CURE.

By H. JOHN STEWART, M. D.,
CHICAGO, ILL.

Having read and heard so much about the Finsen light treatment in the curing of disease, I decided, in April of this year, to make a personal investigation to see and learn for myself if it was true that such diseases as lupus and rodent ulcer could be cured by light. I visited several institutions where the Finsen lamp was in operation. In Manchester, England, in the Salford Skin Hospital they had a Finsen light department under the supervision of Professor Brooke, who informed me they were unable to treat half the sufferers who applied for treatment, and they had solicited by public subscription $125,000 for the erection of a new hospital for skin diseases, where they would be able to enlarge the "light department" so at least 200 people could be treated daily, as there were people on their waiting list whom they would be unable to treat, with their present facilities, for an indefinite time. Professor Brooke was most enthusiastic over the wonderful results they were obtaining there.

I next visited the London General Hospital, of London, England, and found they were just completing an immense light department, that had been established by the present queen of England, then princess of Wales, in 1900, who presented the first lamp at that time. As it was found to be far too inadequate, she had just given a second lamp, and Alfred Harmsworth had also given $50,000 for the perpetual endowment of another Finsen lamp in this department. They were then building a platform to receive the king and queen, whom they expected to come June 11 to dedicate this new department, and even with these increased facilities, I was informed by Professor Sequirey there were patients on the waiting list who were unable to receive treatments.

I next visited the Light Institute at Copenhagen and found that all the statements that had been made regarding the Finsen light were not in the least exaggerated. I had the pleasure of meeting and studying under Professor Finsen himself and was extended every courtesy by Professor Finsen and his assistants at this institution. He seemed very much pleased to describe in the minutest detail the apparatus, treatment, etc., and gave me a detailed history of the Finsen light.

The Finsen light is a large, specially constructed arc lamp of 20,000 candle power, or twenty times stronger than an ordinary street lamp, and uses from sixty to eighty amperes of current. This lamp burns a specially-made carbon which can only be procured at Copenhagen. In the upper holder is a large carbon, while a smaller one is used in the bottom holder; when properly adjusted for arcing a maximum number of violet and ultra violet rays are produced. The advantage of the Finsen lamp over others is in the greater number of violet rays produced. The Finsen lamp produces a much greater number of chemical rays than sunlight, as the atmosphere absorbs a large percentage of these rays. The light is so intense it is impossible to look at it with the naked eye and it is necessary for all the attendants and patients to wear dense smoked glasses while the lamp is in operation; an aluminum hood about two feet wide surrounds the lamp, which hood is fringed on its lower border with a deep crimson-colored paper skirt to further aid in excluding the diffused light from the patients.

The concentrated rays are carried from the arc to the patients through four telescopic tubes, known as converging tubes, suspended at an angle of forty-five degrees, the tubes containing a series of rock crystal lenses so arranged that reservoirs for running water exist between them. By means of the water screen and rock crystal lenses, all rays but the violet are eliminated, and these rays are converged and concentrated, thus vastly increasing the healing and bactericidal effects.

The heat from the original arc is so intense that to prevent cracking of the lenses and discomfort to the patients a stream of cold water is kept constantly circulating through the reservoirs or water screens.

To further concentrate and cool the rays a com

pressor is provided, which consists of two rock crystal lenses so arranged that a chamber for running water exists between them. This part of the apparatus is used to compress the affected area and make it bloodless during the treatment, thus facilitating deeper penetration. The Finsen arc light has been used with marked success in curing many skin diseases, thought until this time incurable, especially lupus and rodent ulcer. During a period of six years the Finsen Medical Light Institute at Copenhagen has grown from a very small shed, where they were only able to treat one patient at a time, to a magnificent institution where they are now treating three hundred people daily, and light institutes have been established in London, England; St. Petersburg, Russia; Paris, France; and Chicago, Illinois, where they are all carrying on a similar work to the parent institution.

It has been a popular belief that lupus was a very rare disease and common only in the northern countries, and although it was supposed there was no lupus in London, yet the hospitals are now treating 175 daily and the management was compelled to install two more lamps and build a separate department, so great has been the demand from people seeking relief. Lupus was considered very rare in the United States, but since the establishment of the Finsen Light Institute in Chicago the author is informed they have been taxed to their utmost capacity, and they, too, have found it necessary to increase their facilities as there are now patients on the waiting list who are not able to receive treatment. It seems but a question of a short time until light institutes will be established in every large city in America, because it has proven so efficacious in many other skin diseases besides lupus and rodent ulcer, such as acne, alopecia-areata, localized eczema, chronic ulcers and nevus. The treatments are given while the patients recline on couches. By firm pressure with the compressors on the tissue to be treated, the blood is removed and more heat can be borne and deeper penetration produced; this compression has another important advantage in that the bactericidal effect is greater because it has been shown that the corpuscles absorb a considerable portion of the rays and thus prevent deep penetration.

The affected area is placed about ten inches from the distal end of the converging apparatus and the treatments, or seances as they are called, take about one hour daily in lupus and rodent ulcer, and in other skin diseases from ten to twenty minutes, depending upon each individual case.

The results attained have been hardly less than marvelous, since from carefully compiled statistics, covering a series of over 800 cases of lupus treated at the Finsen Institute, an overwhelming percentage of cures and an insignificant number of failures is shown, and Professor Finsen goes so far as to say that in lupus-vulgaris cures can be obtained in 97 per cent. of cases, even where the whole face is involved. In these 800 patients, with ages ranging from 5 to 74 years, the average duration of disease was eleven years. This treatment has an advantage over the X-ray in that there is no danger of burning and consequent sloughing. With the light treatment we are dealing with a known quantity, while with the X-ray we have an unknown quantity of uncertain action.

The light treatment causes no pain; a red erythematous spot and blister appears where the light is applied, and in five or six days the scab falls off and the ulcer is healed beneath; the skin is left free from scar or cicatrix, but red. The redness, however, after a variable period, fades and leaves the skin white and uncontracted, except where there has been a loss of tissue from the disease before treatment.

In conclusion, the author would state that the possibilities for the light treatment in the curing of diseases are still unknown, and believes in a limited time it will take an exalted position in the field of medicine and surgery.

MYCOTIC DISEASE OF THE EAR CANAL: WITH REPORT OF A NEW FUNGUS.*

By S. E. COOK, M. D.,
LINCOLN, NEB.,
OCULIST TO THE BURLINGTON AND MISSOURI RIVER RAILROAD IN NEB.

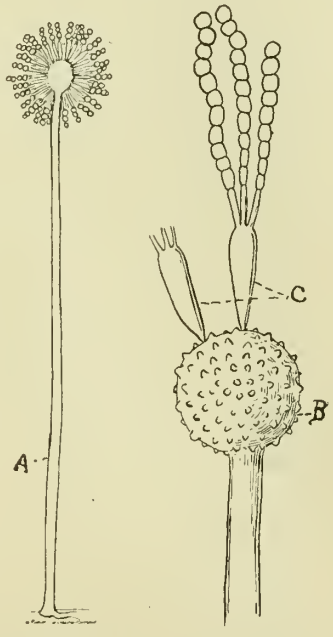
About thirty-five years ago certain classes of fungi were discovered to be the active agents in many inflammatory diseases of the auditory canal. Among the first to report such cases were Schwartze and Wreden. During the succeeding years the number of observers rapidly increased, until now the disease is recognized as common. The parasite most commonly found is some one species of the aspergillus fungus, a member of the class of common moulds. Parasitic otitis is not a primary disease. The soil must be in a favorable condition for the growth of the fungus, otherwise it would fail to obtain a lodgment. An eczema, or psoriasis of the ear canal, or some other form of chronic inflammation attended by maceration and loosening of the epidermis furnishes the necessary conditions. The primary disease is probably always attended by moisture, but it may be of such a mild character as to escape the notice of the patient. The use of oils to combat inflammation in the ear canal is responsible for many cases of parasitic otitis, as an excellent soil for the propagation of the fungus is thereby created.

Many clinical, as well as mycologic varieties of the disease exist. It may be of such a mild type as scarcely to attract the patient's notice, or it may be so severe as to cause intense suffering. The variation in intensity of the disease depends somewhat upon the species of fungus involved. The number of species of moulds commonly found in the ear canal is few, but there have been reported a great number of species exceptionally met. To the latter class it is my fortune to add another.

Some three years ago it was my lot to treat a patient who had an obstinate case of parasitic otitis in which the parasite did not seem to conform to the description of any of those hitherto reported. The material removed from the ear canal was submitted to Dr. Roscoe Pound, of the University of Nebraska, a conceded authority in mycology. He referred the specimen to Sterigmatocystis candida of Saccardo, a spe-

*Read before the Nebraska State Medical Association, Lincoln, Neb., April 28, 29, and 30, 1903.

cies hitherto unknown, or unreported as existing, in the human ear canal. In a paper, entitled "An Addition to the Parasites of the Human Ear," read before the thirty-third annual meeting of the American Microscopical Society, in New York City, and published in the Transactions, Dr. Pound makes the following comment: "Some time ago Dr. S. E. Cook, of Lincoln, submitted to me material of an ear parasite, plainly one of the aspergillaceæ, which had much of the outward appearance of the common A. candidus. Examination revealed branching sterigmata, and I referred the form provisionally to Sterigmatocystis candida. The latter species was discovered by Saccardo, in Italy, in 1876, growing upon decaying insect larvæ, and has since been found in France, growing upon the surface of citric acid. It is probably pantogenous, like the rest of the group. While the form found by Dr. Cook differs from S. candida in being somewhat smaller at all points, the shape of the sterigmata is so characteristic, and agrees so thoroughly with Saccardo's figure (Fungi Italici, t. 80), that in the absence of authentic material for comparison, notwithstanding Professor Underwood's caution that American fungi identified by European names are a source of confusion and must be renamed, it seems best to refer this form to S. candida, noting the slight divergence in measurements." Mycologically considered, sterigmatocystis differs from aspergillus in that in the former the sterigmata are branched, i. e., are compound, while in the aspergillus they are simple, or the conidia are borne directly on the vesicle. The accompanying cut shows the arrangement. Dr. Pound thinks it likely that several pantogenous species of sterigmatocystis are concerned in parasitic otitis.



Sterigmatocystis candida. Saccardo. A, fertile hypha. B, terminal vesicle. C, sterigmata, compound, one of them showing chains of attached conidia.*

Parasitic otitis may be met at any season of the year, and in almost any locality. By some it is thought to be more prevalent in seasons marked by dampness, and in low, moist situations. Some previous affection of the epidermal lining of the ear canal, or perhaps the collection of wax or other foreign substance, is probably a sine qua non for the development of the fungus. The primary disease may be desquamative or ulcerative, and as swelling and moisture are almost necessary attendants, an ideal soil is presented. Purulent disease of the middle ear, however, is very rarely associated with fungous otitis, unless there be coincident inflammation of the ear canal.

* Cut used through courtesy of American Medicine.

The prognosis is good, in so far as the destruction of the fungus is concerned. Under proper treatment most patients recover promptly. Inasmuch, however, as the original condition must be cured to prevent a return of the parasite, relapses are frequent. Treatment therefore should be directed to the restoration of the tissues of the ear canal to a normal condition, after we have succeeded in removing all traces of the fungus. As a general rule water should be used sparingly in the treatment of these patients, especially as the already macerated epidermis is more or less separated and can be brought away much more readily by a dull curet, carefully used, than by the syringe. Indeed it is often quite impossible to effect the removal of half separated epidermis by a stream of water, however powerful. When water is necessary it should be followed up by carefully drying the ear canal with the cotton probe. The medicinal agents recommended for the destruction of the growth are numerous. Preference should be given to those in the dry and powdered form. An exception must be made, however, in favor of alcohol. This rapidly penetrates the crevices and fissures of the skin, and cools the inflamed surface by its rapid evaporation. It should be used somewhat diluted, and the addition of about 2 per cent. of salicylic acid will increase its efficacy. Burnett claims that a powder of 1 part of chinolin salicylate and 8 to 16 parts of boric acid will destroy the fungus as well as the micro-organisms of suppuration.

Following the destruction and removal of the fungus and the products of inflammatory reaction, we frequently have to combat a quite severe inflammation. A good remedy for this is the following solution:

Solution subacetate of lead.....1.25 cc. (20 m.)
Dilute acetic acid..... .36 cc. (6 m.)
Opium sedative solution.....1.25 cc. (20 m.)
Distilled water sufficient to make. 30 cc. (1 oz.)
Instil 10 drops, warmed, into ear canal, as directed.

If the inflammation be eczematous a powder composed of equal parts of zinc oxid and boric acid, or perhaps starch may be insufflated into the ear canal.

My own plan of treatment is to remove all hardened wax with the syringe and warm water. This will not always be necessary, however. There is very often left behind a quantity of macerated debris, consisting of epidermis, fungus, and particles of cerumen intermixed. This may be gently removed, sometimes at several sitttings, by the ring spoon and forceps. After the canal is thoroughly clean and dry, a dilute solution of alcohol, about 60 per cent. or 80 per cent., is instilled into the ear. Many patients do well by partially filling the ear canal with boroglycerid. It depletes the tissues and is a good fungicide. If the inflammation does not subside in a few days I resort to the insufflation of powdered boric acid, or powdered acetanilid, or a mixture of the two. Sometimes the treatment must be persisted in for quite a period of time, but the patients all finally recover. I always direct the patients to return for inspection some weeks or months later, as they are all liable to relapses.

DISCUSSION.

DR. BRYANT, Omaha: The cases I have just reported, on first examination were thought to be feigning, but after

repeated careful examinations I became convinced that this was not the case and that they were actually blind. I have seen a number of cases of hysterical blindness in one eye, but it is a rare thing to see complete blindness in both. If the examiner is careful, the malingerer can always be caught. Such cases are common, especially after a slight injury where there is a chance for securing insurance money or damages from some corporations.

DR. COOK (closing the discussion): These cases give us a great deal of trouble. When they come to us they have usually reached an aggravated stage, and the ear canal often shows the result of clumsy and abortive attempts at removal of its obnoxious contents. We often find that an attempt has been made to relieve the pain and subdue the inflammation by dropping sweet oil, usually combined with laudanum, into the ear canal. I am sorry to say that this practice is by no means confined to the laity, for it is a favorite prescription with some family physicians. The practice cannot be too rigidly condemned, for there is no better medium for the propagation of fungi than sweet oil. Oils should never be put in the ear to be left in. An exception may be made in favor of aniline oil, a few drops of which, combined with 3 per cent. of cocaine, instilled into the ear canal, is a wonderfully effective agent in subduing the pain in acute inflammations of the middle and outer ears.

THE BLOOD.*

BY M. P. OVERHOLSER, M.D.,
HARRISONVILLE, MO.

GENTLEMEN: Our subject for consideration to-day is the blood. A well-known physician and teacher of medicine has recently said that among all the advancements in modern medicine, which have come from the application of the laboratory method to the diagnosis, prognosis, and treatment of disease, none have contributed more than that derived from the careful and systematic examination of the blood. This seems like saying a great deal in view of the fact of the great good which has been accomplished by laboratory methods of investigation along other important lines of work; but it is a fact which cannot be questioned that so much work has been done, recently, in the examination and study of the blood that it has given rise to a separate branch in medicine, forming a new subdivision in medical nomenclature, with special literature and terminology of its own, under the name of hematology. Hematology is, therefore, that part of the science of medicine which treats of the blood. The accumulation of the great number of important clinical facts, and the great mass of hematological literature, which have resulted from these comparatively recent examinations of the blood, have given us so much valuable information in the diagnosis, prognosis, and treatment of so many diseases that the importance of a knowledge of this new branch of medicine is now recognized by the profession, and I dare say that the time is already at hand for the profession, in general, to realize the necessity and importance of teaching, studying, and practicing these various methods of blood examination, so that they may become a part of the daily routine work of the practicing physician of to-day.

In taking up the study of this subject we will commence our work by first considering the anatomy of this important part of the body. In an anatomical sense, the blood may be looked upon as a tissue, composed of cells, called corpuscles, and an intercellular substance, called plasma. The blood differs, markedly, however, from other tissues of the body in a number of respects. Its functions are not confined to any special part of the body, but to all parts of the system, acting upon all other structures of the body, and, in return, is acted upon by all of these same structures through which it circulates. It does not enjoy the same independence as other structures of the body which grow by cell-multiplication within themselves, for the reproduction of the cellular elements of the blood, the corpuscles, does not take place in the blood itself, but in special blood-making organs, as the spleen, lymphatic glands, bone-marrow, and other structures of the body. The blood is, therefore, dependent upon the functional activity of these different blood-making organs, or structures, for the anatomical cellular elements which enter into its construction. Besides, the integrity of the plasma, or intercellular part of the blood, depends upon many conditions and processes of the system, as, for instance, the changes which are continually taking place in the construction and destruction of tissue; that is, the various nutritive processes explained in our previous lecture, including the proper preparation of food substances for assimilation, and the proper excretion of waste material, and still a number of other conditions and processes. The blood is, therefore, a subservient tissue, dependent upon the function of many other organs and processes of the system for its construction and composition. Any abnormal physical change in the blood, whether it be anatomical or chemical, is, therefore, really the result of underlying derangements of other structures or functions of the body. Much time could be spent in considering more fully some of the many derangements of the system which lead to an abnormal condition of this important tissue. Our limited time, however, will not permit us to consider them now, but, if we stop to review for ourselves the many important and vital functions this circulating fluid performs, we cannot fail to realize the necessity of endeavoring to become familiar with the most practical methods now used in detecting abnormal conditions of this important part of the body. Let us remember that the blood serves to carry oxygen from the lungs to the tissues; that it carries carbon dioxide from the tissues to the lungs; that it carries the products of tissue metabolism, or waste material, to other excretory organs, as the kidneys and skin; that it carries the properly elaborated food-stuffs to the tissues for nutrition; that it furnishes the substances from which the different pigments of the body are derived; that it furnishes the material for the special secretions elaborated by the thyroid gland, suprarenal capsules, spleen, etc.; that it acts as the medium for the transmission and distribution, throughout the body, of the internal secretions of these special glands; that it furnishes the agents designed to remove invading bacteria, or other foreign substances, which may gain entrance to the system; that it aids in equalizing the temperature and water contents of the body; and besides all these important functions, we must add many others, from the knowledge we already possess on the interesting ques-

*Second lecture of a series delivered to the students of the Kansas City Medical College on November 13, 1903.

tions of serum-diagnosis, serum-therapy, and immunity. I dare say that there is no other tissue of the body which performs so many vital and important functions as does the blood. It is to be regretted that a careful study of this vital part of the system has been neglected so long, for it has been only recently that the profession has recognized the value of these blood examinations, and now we all anxiously await greater developments in this line of work. We are fully convinced, from the knowledge already gained by these investigations, that still greater truths in medicine will be revealed to us by these chemical, microscopical, and other examinations of the blood.

As we have said before, the two great parts of the blood are the formed elements, or cells, consisting of various corpuscles, and the fluid portion, or plasma. The corpuscles are the red corpuscles, or erythrocytes, the white corpuscles, or leucocytes, and the little blood-plates or platelets. The plasma, or fluid portion of the blood, is made up of water, various albuminous constituents, as serum-albumin, serum-globulin, mentioned in our previous lecture, and fibrinogen. It also contains what are called extractives, products of tissue metabolism, uric acid, creatin, urea, glycogen, etc., and mineral salts.

The red blood corpuscles, or erythrocytes, are small, biconcave discs, 7 to 8 micro-millimeters in diameter. In order to understand these microscopic measures and give you a fairly correct idea of their meaning, we will endeavor to compare them with other measures with which you are familiar. A micro-millimeter, you remember, is one-one-thousandth of a millimeter, and a millimeter is a little less than one-twenty-fifth of an inch, so that a micro-millimeter would be a little less than one-twenty-five-thousandth of an inch. The diameter of a red corpuscle would be, therefore, from seven twenty-five-thousandths to eight twenty-five-thousandths of an inch, or about one thirty-five-hundredth of an inch. Therefore, if we had a single row of red blood corpuscles, placed side by side, in close contact with each other, in a straight line as I now represent on the board, in this manner, it would take three thousand five hundred of these little red cells to make a row one inch long. This illustration is simply to give you some idea of the diminutive size of these important little bodies in the blood. The number of these little corpuscles in the blood is the next thing for our consideration. Normally there are about 5,000,000 red blood cells to the cubic millimeter of blood. In order to have anything like a fair conception of the enormous number of these little corpuscular elements in the blood, we must have a fairly definite idea of the amount of blood we are considering. A millimeter, we have said, is a little less than one-twenty-fifth of an inch. A cubic milimeter of blood would, therefore, be a little volume of blood whose cubic measure would be a little less than one-twenty-fifth of an inch. If there are 5,000,000 of these red cells in a little cube of blood whose dimensions are one-twenty-fifth of an inch long, one-twenty-fifth of an inch wide, and one-twenty-fifth of an inch deep, in simply one cubic inch of blood, which contains 15,625 of these little cubes, there would be 15,625 times 5,000,000 red corpuscles, which would reach the enormous sum of 78,125,000,000 This illustration is simply to give you some idea of the enormous number of these little bodies in the blood. If we place a specimen of fresh blood under the microscope, we find that these corpuscles are so thick and so numerous that it is simply impossible to count them unless we first dilute the blood with a solution which does not dissolve the corpuscles. The instrument for counting the blood corpuscles is called the hemocytometer, which instrument I now show you. It consists of one or two mixing glass pipettes and a special glass slide which contains what is called the counting chamber. The smaller pipette is used for counting the white corpuscles, and this pipette I now hold in my hand is used for counting the red corpuscles; however, some hematologists prefer to count the white corpuscles with the same pipette with which they count the red. You will notice that it tapers to a point at one end, and to the other end is attached a small rubber tube and mouth-piece to be used in making suction when filling the capillary tube of the pipette with blood. This tube has three markings on it, 0.5, 1, and 101, the meaning of which we will explain in a few minutes. Near the upper end of the pipette you will notice that the capillary tube expands into a hollow bulb. The capacity of this bulb is one hundred times the capacity of this capillary tube; that is, if the capillary tube is filled with blood up to the mark 1, the tube will contain only the one-hundredth part of the capacity of the bulb, so that if we fill the capillary tube with blood, and then draw all the blood in the tube, by suction, into the hollow bulb, and with it the diluting fluid, until the bulb is filled and the fluid reaches the mark 101, our blood will then be diluted one hundred times. In practical work, however, in counting corpuscles, we do not need so much blood, so we usually fill the capillary tube only half full, up to the mark 0.5; so you see that with only half the amount of blood and the same amount of diluting fluid that our dilution, instead of being one hundred, would be two hundred. We now find the number of red corpuscles in a definite amount of this diluted blood, one cubic millimeter, and then simply multiply this number by 200, as our blood is diluted 200 times, and this gives us the number of red corpuscles in one cubic millimeter of pure blood. This work we do by means of the counting chamber, which is so constructed that we can measure a definite quantity of this dilnted fluid in a little space which is one-tenth of a millimeter deep and one millimeter square. To explain the construction of this chamber we will call it a little well in a glass slide, something like the diagram I now represent on the board. The depth of this little well is exactly one-tenth of a millimeter; that is, if we covered the little well with a cover-glass, the distance between the under surface of the cover-glass and the bottom of our well would be exactly one-tenth of a millimeter. Now the bottom of this well is marked off in nine square millimeters, as I now ilustrate, by diagram, on the board, in this manner. The center square millimeter is divided into sixteen squares by lines in this manner, each of these squares having an area, therefore, of one-sixteenth of a square millimeter. Again, each of these

sixteen squares is further divided into twenty-five little squares, so that each of these little squares would have an area of one-twenty-fifth of one-sixteenth of a square millimeter, which is one-four-hundredth of a square millimeter. After filling our pipette with blood to the mark 0.5, and then by means of suction drawing this amount of blood into the hollow bulb and with it our diluting fluid, up to the mark 101, as I demonstrated to you a few moments ago, we now place a small drop of the diluted blood in our little well, cover it with a cover-glass, and then wait a few moments until the corpuscles settle down to the bottom of the well, then place it under the microscope and proceed to count the corpuscles. Before placing the small drop of diluted blood in the counting chamber, I wish to state that the mixture of blood and diluting fluid in the bulb of the glass pipette must be mixed thoroughly, which can be done by shaking the pipette quite vigorously, as the bulb contains a little glass ball which thoroughly mixes the blood and fluid on shaking the pipette. I wish to state, also, that you should always blow out the fluid in the capillary tube, first, so as to obtain a small drop of diluted blood from the bulb for the counting chamber, as the blood in the tube cannot be thoroughly mixed and would not be a fair specimen for counting the corpuscles. We will now proceed to count the red corpuscles in each of these little squares in our center square millimeter. However, in practical work, it would take too long to count the corpuscles in all of the four hundred little squares, so we will count them, perhaps, in only one hundred of these little squares, which is only one-fourth of the area of the whole square millimeter. We may find in the first 25 of these little squares 156 red corpuscles; in the second 25 little squares, perhaps, 160 red corpuscles; in the third 25 little squares, perhaps, 148 red corpuscles, and in the fourth 25 little squares, perhaps, 172 red corpuscles, making a total of 636 red corpuscles in 100 of these little squares. Therefore, in 400 of these little squares, or in the whole square millimeter, there would be, on the same average, four times 636 red corpuscles, which are 2,544 red corpuscles. This number of corpuscles, in the illustration we now use, you must remember, is found in a square millimeter of a layer of our diluted blood only one-tenth of a millimeter deep, for this is the depth of our little well. Therefore, in ten-tenths, or the whole cubic millimeter of our diluted fluid, we would have ten times 2,544, which is 25,440, and as our blood is diluted two hundred times, we would then have 200 times 25,440 red corpuscles, which equals 5,088,000 in one cubic millimeter of pure blood, which can be considered a normal amount of red blood corpuscles. To give us a still more systematic method of pursuing this work of counting red corpuscles and avoid confusion in moving the glass slide from one field to another, there are extra vertical and horizontal lines drawn through the middle of every fifth row of these little squares, again separating these little squares into sixteen large groups, each group containing sixteen small squares instead of twenty-five. The usual method of counting the red corpuscles is to count only those found in each of the groups of sixteen squares—that is, only the little squares which are inclosed by those squares which are divided by the extra vertical and horizontal lines. In practical work, therefore, if we count them in this manner, we will say, for illustration, that we find 98 red corpuscles in the first sixteen little squares, 94 in the second 16 little squares, 105 in the third 16 little squares, and 110 in the fourth lot of 16 little squares, making a total of 407 red corpuscles in 64 of these little squares. If in 64 little squares we find 407 red corpuscles, each little square would then contain one-sixty-fourth of 407 red corpuscles, which would be an average of 6.36 corpuscles. If each little square, whose area is only one-four-hundreth of a square millimeter, contains an average of 6.36 corpuscles, 400 of these little squares, or the whole square millimeter, would contain 400 times 6.36 corpuscles, which is 2,544 corpuscles, in a layer of our diluted blood, you must again remember, only one-tenth of a millimeter deep. In a whole cubic millimeter of our diluted blood we would then have ten times 2,544, which equals 25,440, and as our blood is diluted 200 times we would then have in pure undiluted blood 200 times 25,440, which equals 5,088,000 red corpuscles. With this explanation I feel reasonably sure that you now know how to count red blood corpuscles. The composition of a good solution for diluting the blood in counting red blood corpuscles is as follows: Bichloride of mercury, 0.5 grams; sodium sulphate, 5 grams; sodium chloride, 3 grams; aquæ, distilled, 300 grams. This is called Hayem's fluid. There are other good diluting fluids which you will find mentioned in your text-books on the blood. In counting the white corpuscles we may use a special pipette if we prefer, or the same pipette used in diluting the blood for counting the red corpuscles. If we use the smaller pipette we usually make a dilution of our blood only ten times, filling the capillary tube with blood to the mark 1, and then with the diluting fluid to the mark 11. After shaking the pipette thoroughly, we then place a small drop in the counting chamber. We then count the white corpuscles in the whole area of the center square millimeter. If we should find fifty white corpuscles in one square millimeter, in our little well one-tenth of a millimeter deep, in a cubic millimeter of our diluted blood we would find 500 white corpuscles, and if our blood is diluted only ten times, pure blood would then contain ten times this number, which is 5,000 white corpuscles to the cubic millimeter of blood, which is considered a normal number. If we diluted the blood with the pipette used for the red blood corpuscles. in filling the tube to the mark 1 with blood and then to the mark 101 with the diluting solution we would then have a dilution of blood one hundred times. In counting the white corpuscles with this dilution we may find only about five, six or perhaps seven in one square millimeter, if the blood contains the normal number. It will give us more accurate results if we will fill our counting chamber two or three times, each time counting the number of white corpuscles in the whole area of the center square millimeter, and then find the average number in one square millimeter. For instance, if we counted three square millimeters.

and in the first square milimeter we found seven white corpuscles, in the second square millimeter five white corpuscles, and in the third square millimeter six white corpuscles, we would find in the three square millimeters eighteen corpuscles, which would be an average of six white corpuscles to one square millimeter, in our little layer of blood one-tenth of a millimeter deep. Therefore, in a whole cubic millimeter we would have 60 white blood corpuscles; and as our blood is in this case diluted 100 times, in pure blood we would then have 6,000 white corpuscles to the cubic millimeter, which may be considered a normal amount. There are still other good methods of counting the white corpuscles which we will not have time to explain now. One of the fluids used for diluting blood in counting white blood corpuscles is, glacial acetic acid, 0.3 grams; distilled water, 100 grams. The normal number of white corpuscles may range from 5,000 to 8,000 per cubic millimeter.

In testing the percentage of hemoglobin of the blood of a patient there are various methods and instruments used. I will only demonstrate to you a few of the most simple and less expensive methods. I will first show you the method by the use of Tallqvist's hemoglobin scale. This scale of colors is made of ten different shades of red, ranging from a deep, dark red to a very light yellowish red, the deepest shade of red representing the color of white filtering paper saturated with blood containing 100 per cent. of hemoglobin, and the lightest shade representing the color of white filtering paper saturated with blood containing only 10 per cent. of hemoglobin. Between these two extreme shades of red, there are other shades of red which represent the color of white filtering paper saturated with blood containing, respectively, 90, 80, 70, 60, 50, 40, and 20 per cent. of hemoglobin. A book containing this white filtering paper with the scale of colors mentioned constitutes the whole of this simple little instruments, as I now show you. In making this test with this instrument we simply make a small incision in the ear, or finger, of our patient, and saturate a small portion of this filtering paper with blood, and then compare it with the scale of colors, until we find the color it matches most closely, which tells us, sufficiently accurate for practical purposes, the amount of hemoglobin the specimen of blood contains. This is, I think, the simplest and quickest way, thus far known, of ascertaining the percentage of hemoglobin of a fresh specimen of blood. I will also show you Gower's hemoglobinometer. This consists of a capillary tube the capacity of which is twenty cubic millimeters, and a small graduated mixing tube, and two closed glass tubes containing a colored mixture consisting of picro-carmine and glycerine. One of the colored tubes which is used for making the test by daylight is marked by a white dot on the end of the tube. The other colored tube which is used for making the test by artificial light is marked by a black dot on the end of the tube. With natural light as we have now, we use the tube with the white dot. The color of the picro-carmine and glycerine in this tube is the standard tint of a 1 per cent. solution of normal blood in water, viewed by daylight; that is, if a small quantity of normal blood be diluted one hundred times with water the color should equal the color of the standard tint of the picro-carmine and glycerine in this closed tube, by natural light. In making this test we use twenty cubic millimeters of blood which we measure by means of this special glass pipette. Our mixing tube is graduated and marked with numbers, which numbers mean the number of times our specimen of twenty cubic millimeters of blood is diluted with water. If it stands a dilution of one hundred times with water to equal the standard tint, then it contains 100 per cent. hemoglobin. If it will stand a dilution of only seventy-five times with water, when it reaches the color of the standard tint, then it contains only 75 per cent. of hemoglobin; and thus, in each specimen tested, the number of times the specimen is diluted with water to equal the standard tint of picro-carmine, this number represents the percentage of hemoglobin. I will now demonstrate this test, and as I do so I will recapitulate, in part, what I have just explained to you. We first place a small quantity of water in the small mixing tube. We now fill the glass pipette with blood up to the mark 20 cubic millimeters by suction in this manner, carefully wipe off the end of the pipette, and then, by a blowing force, expel the blood from the tube of the pipette into the water in the small mixing tube, thoroughly cleansing the tube of the pipette by drawing water into it by suction, and then expelling it again into the mixing tube. We then shake the mixing tube quite vigorously, so as to thoroughly mix the blood and water. We now compare the color of the water containing the blood, with the color of the tube containing the picro-carmine and glycerine. If we find that our water containing the blood is of a higher color than the picro-carmine and glycerine, we must add more water in the mixing tube until the color of the water and blood corresponds exactly to that of the standard color of the picro-carmine and glycerine. We then note by the scale of numbers on the mixing tube the number of times we have diluted our specimen with water, which number represents the percentage of hemoglobin of the specimen of blood examined. The scale of numbers which shows the number of times the blood is diluted with water, and also represents the percentages of hemoglobin, increases from below upwards, from 10 to 100 and above. You will clearly see that if our specimen contains a small per cent. of hemoglobin that it will need but little dilution with water to equal the color of the picro-carmine and glycerine, and that a specimen of blood which contains a large amount of hemoglobin must be diluted more than a specimen which contains a less amount of hemoglobin, to equal the standard tint of the picro-carmine. Thus the greater the dilution necessary to match the color of the picro-carmine, the greater the amount of hemoglobin in the specimen examined; thus the higher the water rises in the mixing tube by the dilution, the higher the percentage of hemoglobin as shown by the scale on the tube. The number on the mixing tube opposite the top of the water which is necessary to be added to equal the color of the picro-carmine indicates the amount of hemoglobin in the specimen. This

is also a very quick and simple method of estimating the percentage of hemoglobin.

Another method I will explain to you is the specific gravity method. The specific gravity of the blood in healthy adults varies between 1.058 and 1.060. In pathologic conditions of the blood the specific gravity may fall as low as 1.025. We can obtain the specific gravity of blood by means of an ordinary urinometer, a glass tube, and a mixture of benzole and chloroform. The specific gravity of benzole is less than that of water 0.889, and the specific gravity of chloroform is 1.526. By various proportions of these two preparations we can make mixtures of these two fluids with specific gravities ranging between 0.889 and 1.526. In practical work, however, in obtaining the specific gravity of blood we seldom need any greater range of specific gravity of this mixture than that ranging from 1.030 to 1.060. In making this test we fill our glass tube about three-fourths full of this mixture with a specific gravity, we may say, somewhere between 1.050 and 1.060. The ordinary glass tube used for testing the specific gravity of urine may be used for this purpose. A drop of the patient's blood is then allowed to drop directly into this mixture from an incision in the ear or finger, or, perhaps, a better way to transfer the blood from the patient to the mixture, is by means of a glass pipette, such as the red-cell mixer of Thoma, or the pipette used for obtaining blood for Gower's hemoglobin test. In expelling the blood from the glass pipette into the fluid mixture, the tip of the pipette should be submerged and no air allowed to pass out with the blood. The drop of blood does not dissolve in this mixture, but retains its globular shape. If the specific gravity of our mixture is about 1.060, and the specific gravity of the blood globule is normal, the drop of blood may neither sink to the bottom nor remain on the top of the fluid, but may settle down somewhere near its center. If the blood globule should remain on the top of the fluid, then the specific gravity of the fluid mixture is too high for the test, and more benzole must be added and the mixture agitated until the chloroform and benzole are thoroughly mixed, and benzole must continue to be added and the mixture again agitated, if necessary, until the globule of blood neither rises to the top nor sinks to the bottom of the tube. If we should find that the globule of blood sinks to the bottom of the tube, then the specific gravity of the blood is greater than that of the mixture of chloroform and benzole, and more chloroform must be added until it rises near the center. As chloroform raises the specific gravity of this mixture and benzole lowers it, by adding either more chloroform or more benzole, as the case may require, the specfic gravity of any specimen of blood may be obtained. In any specimen of blood examined in this manner, after we have added these two fluids in such proportions that our globule of blood remains near the center of the fluid mixture, we then take the specific gravity of this mixture. The specific gravity of any mixture, of these two preparations, which suspends a globule of blood near its center, is also the specific gravity of the blood we are testing. Blood of a specific gravity of 1.059 to 1.060 contains 100 per cent. hemoglobin; a specific gravity of 1.057 contains 90 per cent. hemoglobin, and as follows: 1.056, 80 per cent.; 1.053, 75 per cent.; 1.052, 70 per cent.; 1.051, 65 per cent.; 1.049, 60 per cent.; 1.048, 55 per cent.; 1.045, 50 per cent.; 1.042, 45 per cent.; 1.041, 40 per cent.; 1.038, 35 per cent.; 1.035, 30 per cent; 1.030, 20 per cent.

Normally the amount of hemoglobin corresponds to the number of red corpuscles; that is, if we have 5,000,000 red corpuscles, or 100 per cent. of corpuscles, each of these corpuscles will have a normal hemoglobin value, and the percentage of hemoglobin will be 100 per cent. also. This hemoglobin value is called the color index. The color index of a specimen of blood is obtained by dividing the number representing the percentage of hemoglobin by the number representing the percentage of corpuscles. For instance, if we have a specimen of blood which contains 100 per cent. of hemoglobin and also 100 per cent. of red corpuscles, which is 5,000,000 to the cubic millimeter, we divide the 100 which represents the percentage of hemoglobin by the 100 which represents the percentage of corpuscles, which gives us a color index of 1, which is normal. If, however, we have 5,000,000 corpuscles, which is 100 per cent. of corpuscles, and a percentage of hemoglobin of only 50 per cent., then 50, which represents the percentage of hemoglobin, divided by 100, which represents the percentage of corpuscles, gives us a color index of only 0.5, or one-half. Again, in another specimen, if we should find only 2,000,000 red corpuscles, which is 40 per cent. of corpuscles, and a percentage of hemglobin of 60 per cent., then 60, which represents the percentage of hemoglobin, divided by 40, which represents the percentage of corpuscles, gives us a color index of 1.5, or one and one-half, which is an abnormally high color index. Here is a very interesting point in blood pathology. It may seem paradoxical, but it is nevertheless true, that a color index higher than normal points to grave forms of anemia. In most of our anemias we find the percentage of hemoglobin below the percentage of corpuscles, and in many anemias the percentage of hemoglobin diminishes in proportion to the diminution of the percentage of corpuscles; but whenever we find that the percentage of corpuscles falls below the percentage of hemoglobin, we must be on the lookout for some grave disturbances of the hemogenic functions, or blood-making organs, or some infection which destroys the corpuscles more rapidly than they are formed. A high color index of the blood seems to be somewhat of a conservative provision of nature in these grave anemias. It looks like an effort on her part to compensate, as best she can, for the loss of corpuscular richness by increasing the hemoglobinic richness above normal in the remaining corpuscles. We can clearly understand that, if in normal conditions of the blood 100 per cent. of corpuscles gives us 100 per cent of hemoglobin; that if 40 per cent. of corpuscles gives us 60 per cent. of hemoglobin, these corpuscles must contain more hemoglobin than a normal corpuscle, and yet this condition of the blood may be found in the gravest forms of anemia.

We will take a few moments to consider some of the abnormal red corpuscles as we may find them in

our examinations. These corpuscles may be abnormal in size, in shape, or in their elements of construction. An abnormally small red corpuscle is called a microcyte. The diameter of a microcyte may range from 3.5 micro-millimeters to 6 micro-millimeters. The diameter of a normal red cell, or erythrocyte, you remember is from 7 to 8 micro-millimeters. The abnormally large red cells embrace two sizes. Those which have a diameter of from 9.5 micro-millimeters to 12 micro-millimeters are called macrocytes, and those which have a diameter of from 12 to 16 micro-millimeters are called megalocytes. When the red corpuscles are irregular in shape, oval, oblong, pointed, kidney-shaped, etc., they are called poikilocytes. In these abnormal sizes and shapes of red corpuscles, where the microcytes are numerous, this abnormal condition of the red corpuscles is called microcytosis, and if the macrocytes are numerous it is called macrocytosis, and if poikilocytes are present, it is called poikilocytosis. Microcytosis, macrocytosis, and poikilocytosis are usually found in the same specimen of blood in grave cases of anemia. In that form of anemia known as chlorosis it is sometimes found that all of the red corpuscles are abnormally small, giving rise to a well-marked condition of microcytosis. These abnormal conditions of the blood can be determined by microscopical examinations of unstained, fresh blood specimens. A great variety of abnormal conditions of the blood, however, can only be found by a microscopical examination of carefully prepared, properly fixed, and well-stained specimens. Here we enter a most interesting field of hematological work and study, which we will not have time to consider today. This subject we will take up at our next lecture.

SOME PROBLEMS IN PREVENTIVE MEDICINE IN NEBRASKA.*

BY S. R. TOWNE, M. D.,
OMAHA, NEB.

In a late bulletin of the Chicago health department Dr. Reynolds, the commissioner of health, makes special mention of two sanitary conditions in Chicago: "First, woman's beneficent activity and influence in ten years past in improving, by precept and practice, personal hygiene and public sanitation. Second, added to this, a most potent ally of the department is the co-operation and assistance rendered by the medical profession. The present attitude, so remarkable a change from ten years since, is one of the most efficient factors in the prevention of disease and the promotion of longevity." Quoting from the bulletin of July 25, 1903, he says: "There is visibly arising among the most intelligent of our people the beginnings of a new development of the moral sense, a feeling of personal responsibility for the existence of disease, an influence which may do as much for the physical and mental condition of man as morals and religion have done for their conduct; a health conscience is being slowly created." Quoting further from an address of Dr. T. S. Clonston, president of the Royal College of Physicians, Edinburgh, given July, 1903: "It goes without saying that to do much good and to establish a health conscience, which should be the ultimate goal of our labor, continuous iteration of the commonest health maxims would be required. The repetitive principle of the weekly service and sermon would have to be adopted. The parent, the teacher, the clergy, the public man, the politician and the editor would need to be instructed, interested and enlisted in our cause. The press, I am convinced, must be our chief pulpit." It is to help to make plain the great privilege we as physicians have at home in Omaha and Nebraska to lend our aid in the formation and growth of this public conscience that will engross our attention to-night.

First, then, what may be done among us to improve the quality of milk; that food so essential to infancy, childhood and invalidism? First, the state has a right to secure for this food its freedom from pathogerms: (*a*) the bacillus of typhoid, (*b*) the bacillus of tuberculosis, (*c*) the bacillus dysenteriæ (Shiga). To secure the first result no person or family in Nebraska should to the slightest degree in any way come in contact with any public milk supply which is or has recently been infected with typhoid. Likewise no tuberculous animal should be allowed in a dairy, nor should an infected person, unless carefully instructed and watched, be allowed in association with dairy milk. Despite the famous announcement of Koch two years since at the International Congress, the accumulating evidence from all sources, and particularly in America, is in favor of the intercommunicability of human and bovine tuberculosis. No idea was more prominent at the recent conference at Baltimore and the meeting of the American Public Health Association at Washington, D. C., in October. Dr. Ravenel, of the Phipps Institute of Philadelphia, made very clear his experience in feeding a variety of animals, the monkey included, with tuberculous bacilli in conjunction with fats. In all cases were the lungs invaded with organisms and broken down sufficiently at times to rapidly destroy the animal and this without lesion of the digestive tract; all going to prove that our past efforts at suppression of tuberculosis, while expensive, have not been amiss as some have feared.

If, as was shown us at the meeting in Baltimore, the bacillus of Shiga is present in nearly all diarrheas of children and absent from the healthy, the state must see to it that this organism is not distributed in milk. Lastly, the family has a right to milk with a moderate bacteria count. Dr. G. W. Goler gave at the Health Association the following table as the result of four years' attempt at Rochester, N. Y., to maintain a standard of 100,000 bacteria per cc. for a municipal milk supply:

	1900	1901	1902	1903 (9 mo.)
Monthly average	796,468	275,327	215,917	209,552
Number samples	319	287	531	329
Number over 5,000,000	33	28	26	33
Number over 100,000	50	82	185	13

While the bacteria count is less essential than the absence of pathogerms, yet with filthy, careless handling and continuous agitation during the heated term, the amount of acid or toxin becomes a danger to an infant. Health boards must then secure for the pub-

* Read before the Omaha-Douglas County Medical Society, Omaha, Neb.

lic a clean milk, quickly cooled and delivered to the consumer.

Second. Typhoid fever we do not escape in Nebraska despite the fine water from the underlying gravel bed. Much of it could be prevented by intelligence in the family. A circular in the physician's hands, carried to households and communities, giving rules of prevention before or after a case is established, would make a valuable impression and help to form a health conscience.

Third. No more successful and surprising effort in an educational way has been made by sanitarians than that of applying methods for the prevention of tuberculosis. Nebraska suffers half as much probably as the Atlantic states and cannot anticipate a sanatorium at present, valuable as it is educationally. Our state board of health is asking reports of tuberculosis that each household may be directed, where disease does exist, toward those ideal conditions where contagion is never transmitted to nurse or friend. Without direction, transmission is quite certain to occur.

Our whole nation might well adopt the methods, for instance, of Brighton, England, under Dr. Newsholme:

1. Printed instructions to patient how to use pocket spittoons, Japanese handkerchiefs, etc.

2. A proper disinfection of premises, especially after death.

3. Inspection where needed, not officious, but helpful to ignorant and poor.

A month's sanatorium experience is valuable, not only for the health of the patient, but educationally. With the growth of dairying interests in our state and the decided reaction against Koch's famous declaration denying the intertransmissibility of human and bovine tuberculosis we have a field for study and effort.

Fourth. Our state does well to isolate diphtheria, but it should secure for the patient and the exposed also the immediate use of antitoxin, both as curative and preventive.

Fifth. In cities and towns surely we should not ignore chicken-pox, measles or whooping-cough. They should be reported and placarded, if not quarantined.

Sixth. Our United States Census Bureau, now made a permanent body, urges all states to record vital statistics. Every physician realizes the value of such a record when returned to him in the study of disease. Accuracy and completeness are essentials. These must be secured from the physician at the time of his attendance. Thus only can we know of the plague in San Francisco, the yellow fever in Texas, or the pneumonia in Chicago. The cause of death is a matter due the family and the state. The undertaker, before the removal of all evidence in the case, should secure the facts for record. The undertaker does take pride in his work, as the writer can testify. Our profession is soon to take the same pride in helping to make public records complete. We only need to give the subject a little more thought.

Seventh. One further consideration of exceeding importance to our state and our profession, especially in the cultivation of the "health conscience": Union-organization is the watchword for to-day. Intensely gratifying is the progress in the unification of the medical profession; not for power or aggrandizement, but fellowship and acquaintanceship. Our opinions of one another and our expressions about one another will soften and the community will have a higher esteem of medical men. All this will promote general welfare. Every medical man will be stimulated to do even better work and take far more pleasure in it. The public health will thus receive the attention and effort it deserves.

OPERATIONS ON THE TONSIL; TECHNIQUE AND INDICATIONS.*

By HENRY B. LEMERE, M. D.,

OMAHA, NEB.

In arranging the matter of this essay I have reversed the general order by treating first the technique and afterward referring to the indications for operation. I have done this because it is well to have in mind what we can accomplish when considering the different conditions we may meet.

The operations on the tonsil consist of enucleation of the tonsil partial or complete and in this paper referred to as tonsillotomy, and of slitting, curetting or cauterizing the ducts. In this group may be included lancing of the peritonsillar abscess.

In tonsillotomy I have nothing very new to show in the line of tonsillotomes. The Mackenzie and the Mathien with their various modifications are equally efficient in the enlarged tonsil free from adhesions and equally inefficient in the case of the flattened or submerged tonsil. I have here a somewhat handy Mackenzie instrument with a reversible handle and an excellent guide for the shank. The main objections to the Mathien have been its frailty and the complication of the various parts. I have here a modification of the Mathien which is both strong and simple. At the same time it has a pair of blades which during the whole time of its cutting slide are in contact at only two points, thus cutting like a scissor.

The great difficulty in snaring has been in cutting through the final strand of tissue, either the instrument or the wire breaking at this critical moment. This snare I exhibit does away with this by three counts. First—It has a cutting edge for the wire to finally work on. Second—The leverage is doubled by having only one end of the loup fastened to the draw piece, the other end being fastened to the body of the snare. Third—The snare is heavily made and will take as high as No. 9 piano wire, though I have never found it necessary to use any heavier than No. 7.

The knives I present are Abram's set and consist of a double edged curved bistoury, an angular knife, an angular probe point knife for dissecting the pillars and the base, and a curette for cleaning out the crypts.

I have prints here, kindly sent me by Dr. Pynchon, of his cautery points for dissecting out the tonsil with the galvano cautery, and also of his tonsillotomes.

Tonsillotomy performed with the guillotine is probably preferable in the majority of cases of hypertrophied tonsils standing out well from the pillars. It is

* Read before the Nebraska State Medical Association, Lincoln, Neb., April 28, 29, and 30, 1903.

the best method when the patient is under general anesthesia. The snare is probably less formidable to the patient and is less liable to be followed by hemorrhage, though any method of procedure will at times be followed by severe bleeding either primary or secondary.

When indications present themselves for the removal of the submerged tonsil its complete enucleation is called for. The only way this can be performed is by dissection, blunt cutting or cautery, or by dissection combined with the snare. The main difficulty in dissecting out the tonsil after the patient is under control is the obscuring of the field by hemorrhage. Copious applications of adrenalin before operating slightly allay this but at the best the operation is tedious and generally requires several sittings. When the tonsil has been well dissected from its adhesions to the pillars and a sessile base has been dissected to somewhat of a peduncle the snare can be used to complete the operation. Pynchon avoids hemorrhage to a great extent by using galvano-cautery dissection. He takes out half a tonsil at a sitting and times his sittings about fifteen days apart so that the enucleation of the four halves making up the two tonsils occupies from forty to sixty days.

For lancing a peritonsillar abscess I use the two-edged curved bistoury.

The indications for removal of the tonsils can be tersely stated by saying that the surgeon should remove the gland when in his opinion the evils resulting from its presence are greater than the benefit resulting from its action as a lymphatic.

The action of the tonsil as a secreting gland is according to our present knowledge of very minor importance. Its action as a mechanical supporter to the faucial pillars is also slight.

The evils may be classed as the mechanical obstruction of chronic hypertrophies, the tonsillar inflammations and their sequelæ and lastly the secondary infection of the glands.

The mechanical obstruction arising from chronically enlarged tonsils is a constant factor though it may only be aggressively prominent when acute inflammation is added to the chronic condition. This mechanical obstruction results in such malnutrition as comes from deficient oxygenation of the blood, and in the pigeon-breast thorax with its impaired lung. It is worthy of note in regard to this condition that the patient can not obtain relief from mouth breathing as he does in adenoids but still is often a mouth breather either as a result of concurrent adenoids or from his ineffectual gasps for air.

The obstruction to the ventilation of the ear is generally intermittent and its effects in producing permanent deafness not noticeable till after childhood. When, however, the ear has reached this condition of permanent deafness the changes in the middle ear as a rule are such that the ablation of the tonsil will not restore the hearing.

The effect of tonsils on voice production varies as to their size and the number of adhesions to the pillars of the fauces. The ordinary hypertrophy may be estimated at about a cubic inch on each side, but as the tonsils are situated in the oral cavity which is changed in shape and size at will, this diminution in its capacity is not of so much moment as an obstruction of much less magnitude in the nose or nasopharynx and is more than compensated for by the increased mobility of the faucial pillars. Large tonsils cause a thickness of utterance, and the deep breathing necessary for perfect voice production is often rendered impossible both by the direct obstruction of the tonsil and also by the secondary changes in the chest. Miller in a recent number of the Laryngoscope calls attention to the fact that the deficient action of the extrinsic muscles of the larynx are responsible for singers' nodes. I have now under my care a gentleman whose profession causes an excessive use of his voice. On the right side the tonsil had been removed several years ago. The left tonsil is greatly enlarged and adherent to the pillars of the fauces. On the left vocal cord there is a singers' node. There seems to exist, however, among the laity a belief that removal of the tonsils will impair the voice. I am at a loss to discover the foundation for this as I have never seen a case in which there was any impairment of the voice or any such claim made on the part of the patient.

Acute follicular tonsillitis is liable to occur in a previously healthy tonsil and it is only when the tonsils are exceptionally large that it becomes acutely dangerous. In these cases it is sometimes necessary to remove the tonsil while in a state of acute tonsillitis. The objections to tonsillotomy at this stage are the greater danger of hemorrhage, as the vessels are engorged, and also the greater pain of the operation. In the case of smaller tonsils which are the seat of recurrent attacks of tonsillitis and where the tonsil is clear of the pillars I think it good practice if the patient present himself at the commencement of an attack of follicular tonsillitis to remove the tonsil as it can often be gotten away at this time cleaner and also the attack be greatly shortened. If seen between attacks these tonsils may be treated by cauterization of the crypts or slitting the crypts, thus enlarging them and lessening the danger of retained secretion.

Quinsy is the condition in which the greatest difficulty is experienced. As a rule it is an abscess of the supratonsillar fossa, the pillars are often adherent to the tonsil and the gland submerged in their folds above. In many instances the supratonsillar fossa becomes a closed cavity and particularly is this the case when there is any acute inflammation of the tonsil. This fossa is the hotbed in which the peritonsillar abscess generally starts. Quinsy is a condition subject to constant recurrence and to prevent such recurrence it is highly essential to cleanly remove the submerged tonsil or at least its upper portion. There is no tonsillotome which can reach this submerged tonsil and cleanly remove it and it is after tonsillotomies thus attempted that recurrence of the quinsy is still possible. To these ineffectual attempts and the recurrence of quinsy is due the disfavor with which tonsillotomy as a cure for quinsy is regarded by many. The tonsil is too deeply seated and surrounded by too many adhesions to be engaged by

any form of tonsillotome and must be dissected from the pillars and then either snared or dissected from the base. As the supratonsillar fossa is generally the seat of the affection it is most necessary to get the upper portion of the tonsil cleanly away as this portion when swollen forms with the walls of the supratonsillar fossa a closed cavity in which the infection from the crypts of the tonsil forms the nucleus of the abscess. It is in this class of cases that Pynchon recommends the use of the electro-cautery dissection claiming that its freedom from hemorrhage enables the operator to more cleanly remove the tonsil. I myself dissect the tonsil out with knives and a sharp hook completing the operation with a snare or by continued dissection. I have never employed the galvano-cautery dissection, fearing too great a reaction.

The enlarged tonsil and the submerged tonsil when in conjunction with enlarged cervical glands should be entirely removed and an examination made for both tubercular tissue formation and for the tubercle bacillus as an indication to further removal of the cervical glands.

Floderus states that in scrofulous children with enlarged cervical glands 48 per cent. have pharyngeal adenoids and 32 per cent. enlarged tonsils.

In my cases of tonsillitis and chronic lacunar tonsillitis the crypts may be curetted and cauterized.

I have found it advisable to remove enlarged tonsils where there is a persistent recurring pharyngitis or laryngitis where the vocal function is impaired even though the tonsils are causing no active trouble by themselves being the seat of chronic or acute follicular tonsillitis or quinsy.

VICARIOUS MENSTRUATION.*

By W. J. HEMPHILL, M. D.,

NORTH LOUP, NEB.

In order to draw some of my conclusions it will be necessary to give a brief review of normal menstruation. It may be defined as a periodical discharge of blood from the uterine cavity, depending upon ovulation and recurring at regular intervals between puberty and the menopause, except when physiologically interrupted by pregnancy and lactation. It is attended with increased nervous tension, increased vascular tension and increased temperature. The physiological substitutes for menstruation are pregnancy, lactation, and building up new tissue. There is an increased amount of blood elaborated during each month to supply this demand, and if it is not discharged in the normal way or used for the physiological substitutes, mischief will result.

Vicarious menstruation is a discharge of menstrual blood through some channel other than the uterus. As to the etiology there are various theories, the most prominent of which are the plethoric, neurotic, and local depravity of tissue.

1. The plethoric is one of the oldest and based upon the fact that intra-arterial tension is always increased before menstruation. It implies the necessity of relief through some channel; if the usual avenue is closed, vent is found at the place of least resistance, as the brain, liver, kidneys, bowels, etc.

2. The neurotic theory. In support of this theory it is adduced that menstruation may be suppressed by emotional causes, as anger, fright, joy, etc., the suppression being followed by hematemesis, hematuria, etc. The subjects of vicarious menstruation are nearly, if not always, subjects of some nervous disorder.

3. Local depravity of tissue. It has been observed that the seat of hemorrhage is frequently located in tissues diseased or congenitally weak. Scanzone especially emphasizes the importance of abnormal structures of vessels supplying the organ from which the flux proceeds. Depaul and others remark that the blood flux usually takes place in regions of tissues deprived of their natural tegument, that is, from wounds, ulcers, etc., but there are several cases on record in which no such disease was present. It must not be forgotten that diseased tissue may be the consequence rather than the cause of the ectopic discharge. If it be true that increased intra-vascular pressure plays such a prominent role in both normal and vicarious menstruation, it seems not illogical to presume that the escape of blood is likely to occur at the point of least resistance.

None of the several factors, then, upon which the foregoing theories (plethoric, neuritic and local depravity of tissue) are based can be ignored in studying the etiology of vicarious menstruation. Some one element may be sufficiently conspicuous in a given case to overshadow the other two, but a more careful analysis will in most instances, at least, show a blending of two or more of them, each of which plays a more or less important role. The conclusions, then, are as follows:

1. That as menstruation is a physiological necessity, so when the function cannot be performed in the ordinary way some sub titute must be found for it or mischief will ensue.

2. Vicarious or supplementary functional action is a fundamental law in physiology. There is nothing exceptional in vicarious menstruation.

3. Vicarious menstrnation may occur under various phases.

4. It is conservative in intent and action, lessening or averting evil.

Treatment.—

1. The conditions which interfere with the proper discharge of the menstrual blood should be removed.

2. Since vicarious menstruation is often associated with amenorrhea and dysmenorrhea, the cause of these two symptoms should be sought for and removed. Mechanical obstruction in some portion of the genital tract is a frequent cause and such obstruction should be overcome.

3. When the neurotic element predominates the nutritive functions are usually in disorder. Defective hematosis is of frequent occurrence and the functional derangement is often marked. The depravity of nutrition may either precede or follow the nervous disorder. The indications in either event are to correct the constitutional condition.

4. If the vicarious discharge proceeds from an un-

* Read before the Valley County Medical Society, Arcadia, Neb., October 12, 1903.

healthy surface an attempt should be made to heal the morbid seat. An effort should also be made to divert or attract the menstrual discharge to the uterus, by (*a*) derivative or revulsive bleeding, (*b*) local applications of iodine and the hot vaginal douche, electricity, etc., and (*c*) the internal administration of digitalis, ergot, iodine, mercury, arsenic, etc.

An illustrative case: The case which I bring before you to-day is an interesting one from the fact that there is such a dearth of literature on the subject and that it is of a girl only four years of age. The history of the case is as follows: Family history, negative. She was well and hearty until about one year of age, when she was taken very sick and had several hard spasms, attended with high fever, evidence of delirium and circulatory disturbance. She recovered from this attack but in a few weeks she was taken again with spasms and an apparent repetition of the symptoms of a few weeks before. Ever since then she has had a sick spell periodically, sometimes with spasms and sometimes without, but always with fever, nervous excitement and increased vascular tension. At first the cause of her trouble was attributed to worms, but after treating her for worms without any benefit, the cause of her trouble was then thought to be indigestion, and treated accordingly, with the same futile results. Until she came under my care November 25, 1902, she had had no apparent benefit from her treatment. When I first saw my little patient I found her in a very bad condition. Temperature, 103⅖; pulse, 140, full and bounding; face flushed and bloated; eyes congested and protruding. The neck was stiff and very sensitive to touch; tongue slightly coated, with red tip; tonsils slightly congested. Examination of chest and abdomen negative. She was peevish, shy and flighty, talked a great deal and always in a quick, excited manner. All of her motions were very quick and impulsive. The night before she had been restless, with a raging fever and delirium. Urination was frequent, urine high-colored; stools contained undigested food and mucus; constipated.

After excluding exanthemata, gastric and intestinal indigestion, bronchitis, etc., I was somewhat at a loss to know just what sort of a case with which I had to deal. I was satisfied that there was some deep-seated condition that was causing all of this trouble and I told the parents that I should have to study the clinical history before I could tell them just what the trouble was. I examined the urine and found there had been a hemorrhage into the kidney, otherwise normal. I found evidence of hemorrhage in the stool, also mucus and undigested food. I then found that she had epistaxis, which relieved her very much. On observation I found that these attacks came every twenty-eight to thirty days and lasted about four or five days, between which she was apparently well. During the attack there was excoriation about the genitals which on examination I found to be caused by leucorrhea. I now was able to make a diagnosis of vicarious menstruation, but the parents would not believe me until a short time ago when she menstruated through the normal channel. Through some unknown cause the menstrual discharge was established in this child when she was one year of age. As there was an increased amount of blood to supply the menstrual flow, and as the uterus was not developed enough to discharge this flow, the hemorrhage occurred at the place of least resistance. I put her on pulsatilla and belladonna, which have controlled her symptoms very nicely, so that now she has only a slightly-increased nerve tension at these times.

General Medicine.

LE ROY CRUMMER, M. D., Omaha, Neb., Department Editor.

WIDOWITZ recommends the use of urotropin as a prophylactic against nephritis in scarlet fever. In 102 cases of scarlet fever where he gave 1-7 grains three three times daily there was not a single case of post scarlatinal nephritis.—LE ROY CRUMMER, Omaha.

SCHMIDT, of Dresden, has been treating inflammatory rheumatism with the anti-streptococcus serum. He treated fifteen cases; six cases were objectively improved, and four cases with a diminution of the pain and suffering; five cases, no benefit. He recommends the treatment in subacute cases which have resisted the ordinary means of treatment.—LE ROY CRUMMER, Omaha.

ON THE ETIOLOGY OF EPITHELIAL TUMORS.—Stahr (Abst. in Centralblatt für Bacteriologie, Nov. 4, 1903, p. 62), chancing to find a papillary epithelioma on the tongue of a tame rat, found on further investigation that tongue tumors of other individuals of the same species contained bundles of hairs which proved to come from the oats on which the rats were fed; and now announces as the results of experiments conducted through several years that he can at will produce epithelial tumors of a certain part of the tongue (namely, the papilla vallata) by feeding rats on an exclusive oat diet, while other rats under similar conditions, except that they were fed on other things, remained free from the tumors. While it is not safe to generalize too freely from the results on a single animal species, they deserve the highest consideration as exhibiting the first successful production of epithelial tumors by a definite plan of diet.—GIFFORD.

ON THE IDENTITY OF HUMAN AND BOVINE TUBERCULOSIS.—Arloing (Abst. in Centralblatt für Bacteriologie, Nov. 19, 1903, p. 116) sums up the results of his experiments as follows: (1.) Human tuberculosis can readily be conveyed to cattle by means of inoculation. Under certain conditions such inoculation produces the characteristic changes of bovine tuberculosis. (2.) The tubercle bacillus of man has a variable virulence, and a given bacillus does not always give the same results in ruminants of different species. (3.) In some cases the human bacillus is fully as virulent as that from cattle. In others its activity is so much reduced that its effect, especially on cattle, is almost wanting. (4.) The bacilli from man, with reduced virulence, when injected into the veins of cattle, regularly pro-

duce, in the lungs at least, pathological changes visible with the microscope but which tend rapidly to become fibrous. (5.) From the foregoing it is evident that one should not report a negative result from an inoculation before one has examined microscopically the lungs and other important viscera. (6.) The variation in the virulence of the bacillus explains the comparatively negative results of Koch and Schütz. (7.) The unity of the tuberculosis of man and cattle must be maintained, also the prophylactic measures which follow from this conclusion, especially with regard to the consumption of milk.—GIFFORD.

ON INTRAVENOUS INJECTIONS OF MERCURY.—Abadie (Abst. in Woch. Ther. u. Hygiene des Auges, Oct. 1, 1903) gives striking evidence of the advantage of intravenous injections in the treatment of syphilis. One of his patients was a man whom Abadie had treated successfully for specific iridochoroiditis, with subcutaneous injections of oxycyanid of mercury. Eight years later he presented himself with all the signs of a beginning chronic myelitis. Abadie referred him to a syphilologist, who treated him with inunctions and large doses of iodide of potash. On this treatment the weakness, pains, contractions of the lower extremities and the impotence grew steadily worse. The discouraged patient returned to Abadie who started in with the subcutaneous injections again but this time without result. Then intravenous injections (one-sixth grain of the oxycyanid daily) were used, with rapid improvement of the symptoms. This improvement, however, only continued when the injections were steadily employed. During the first year nearly 200 injections were made. The treatment lasted in all six years, during which period he was never without treatment for more than three months. Finally, however, a complete and permanent (at least for two years) cure of all the spinal symptoms was obtained. Cases are detailed in which the vision grew steadily worse under a rigorous course of mercury (by the skin and hypodermically) and iodide, but which improved rapidly and permanently under the intravenous injections.—GIFFORD.

ON THE ETIOLOGY OF SO-CALLED RHEUMATIC TETANUS.—Racine and Bruns report a case (Deutsch. Med. Woch. 43-1903) which in former years would have been classed as rheumatic or idiopathic tetanus; or in other words, genuine tetanus, the origin of which cannot be ascertained. Before the discovery and cultivation of the tetanus bacillus such cases were not at all uncommon, and in many text-books the rheumatic form is still given a place. Racine and Bruns contend that the terms "idiopathic" and "rheumatic" should not be used in this connection, but that where the diligent use of modern methods fails to detect the source of infection the term "cryptogenic" tetanus should be used just as we speak of a cryptogenic pyemia. Their patient was a miner, aged 20, who went through a severe attack of genuine tetanus and recovered, possibly because the antitenanus serum was used freely. The origin of the trouble was not discovered until the patient had been treated for some days, when careful questioning elicited the fact that a week or two before he was attacked, he had suffered from severe pain in the right ear and had frequently scratched the auditory meatus with bits of twigs broken from a brush-broom with which he cleaned the tracks of the horse tramway in the mine. As it is well known that horse-dung very commonly contains tetanus spores, it seemed not unlikely that the patient had inoculated his ear with them. This was made almost certain by the cultivation of typical virulent tetanus bacilli from the cerumen and dirt in the man's right ear, while cultivations from the other ear and the throat gave negative results.—GIFFORD.

INFANTILE SUSCEPTIBILITY TO TUBERCULOSIS.—Von Behring's conception of the communication of bovine tuberculosis to human beings, as students of the subject are aware, is directly opposed to that of Koch. The matter, as a mere controversy, has little interest for the average practitioner except that it may have a practical advantage in illuminating certain little known phases bearing upon the etiology of tubercular infection. One fact upon which von Behring lays considerable stress is the incapability of the intestinal tract to resist the absorption of disease germs and other noxious elements in early infancy. He has shown by experimental investigation that the membranous lining of the gastro-intestinal tract is deficient in epithelial covering in very early life, and for this reason many substances then readily pass directly into the blood current unchanged. He has shown, for instance, that immunity to diphtheria and to tetanus can be secured in young guinea-pigs by the use of the antitoxins of these diseases, administered by way of the alimentary tract, instead of subcutaneously. The large albuminous molecules of the antitoxins pass into the blood current during the first days after birth, without conversion into peptones. It is likewise shown that bacilli, when fed experimentally during this period, are also found in the blood stream.

Imperfect continuity of the epithelial covering and deficiency of the digestive ferments in the alimentary tract of young animals are the evident causes rendering them especially susceptible to the invasion of bacteria. Solutions of continuity of the epithelium may occur in older children and in adult life, during attacks of disease, such as measles, scarlatina and the like, and may thus play a part in the production of tuberculosis. Tubercular infection experimentally produced in guinea-pigs by the bacilli of tuberculosis administered by way of the alimentary canal is found first manifested by tuberculosis of the cervical glands, a state suggestive of scrofulosis as exhibited by the young of human beings.

Milk contaminated with the bacilli of tuberculosis, whether bovine or human, may be regarded as an undesirable element in the alimentary canals of young infants.

Until the susceptibility of human beings to bovine tuberculosis has been disproved beyond the peradventure of a doubt, it will be wise for the physician to

continue to guard to the best of his ability the infantile intestinal canal against the entrance of the bacillus tuberculosis of both human and bovine origin.—Editorial in Brooklyn Medical Journal.

OTITIS MEDIA.—Morse, in all cases in infants, in which the diagnosis is not clear, always examines the ears. Symptoms are misleading and the only satisfactory way to reach a conclusion is to look into the ears with a speculum. Otitis media in infancy is more often mistaken for pneumonia than for any other disease.

Nervous and Mental Diseases.

J. M. AIKIN, M. D., Omaha, Neb., Department Editor.

PSYCHIATRY THERAPY.—The author calls attention to the skin as an organ of elimination and thinks that a failure of this organ to perform its function may be at the bottom of some psychoses of possible toxic origin. In a case diagnosed as "periodical neurasthenia" he claims to have been able, by the local application of cold, to produce an array of symptoms affecting the skin, the circulatory organs, and sometimes the digestive apparatus, with mental manifestations corresponding closely to those of catatonia, all of which could be made to disappear, by warming up the skin again. From clinical study, and from the above experimental evidence, he urges the advisability of avoiding drugs which tend to produce arterial spasm, caffein especially. The symptoms described he attributes to the production of arterial spasm, the consequent suppression of transpiration through the skin, and urges the rationality of encouraging sweating, and especially of the use of the prolonged warm bath as recommended by Kraepelin and others.—(Journal of Nervous and Mental Diseases.)—J. M. AIKIN, Omaha.

THE COCKTAIL IN THE HOME.—The seductive, destructive, delusive, deadly cocktail has found its fatal way into homes of respectability. It has become, in households, where it should not be, the preprandial potion of the dining-room, the boudoir, forerunner of the four o'clock tea sometimes, and the sweet sting of the hearthstone. In homes where the neuropathically unstable are liable to oinomania, it transforms young men and young women into dipsomaniacs. There are allurements enough of nerve-disturbing alcohol in secret seductive forms, now in the pathway of our youth, to prompt us to warn the ladies of this fair land to exclude the cocktail and the high-ball from that sanctum of sanctums, the American home; not to mention pe-ru-na and similar alcoholized patent medicines. The pathologists, the alienists and the neurologists, through researches that tell the stories of cerebral arteritis, atheroma and sclerosis and the second generation transmissions of epilepsy, insanity and other neuropathies and psycho-neuropathies, prompt this timely warning.

Brethren, let us stand guard against the deadly cocktail, the seductive julep, the enticing high-ball and the alcoholized patent medicines in our homes.

Women who contemplate at any time assuming the duties of motherhood or matrimonial relations with a husband accustomed to drink should especially refrain from alcoholics.

Child-bearing women need to be free from the alcoholic beverage habit to aid in saving their offspring from the morbid entailments of alcoholic indulgences, such as epilepsy, dipsomania, insanity, chorea and other conditions of nerve-hereditary instability. Let our women strive to make physiological atonement for the alcoholic excesses of mankind by total abstinence. Thus they may help to better the community by giving it sounder-nerved children, free from entailed parental-alcoholized, nerve-center-damaged neuroses.—(Chas. H. Hughes, in Medical Herald.)—J. M. AIKIN, Omaha.

BRAIN WEIGHT IN DEMENTIA PARALYTICA.—The author gives the results of his investigations as to the weight of the brain and its different parts in 102 male paretics dying in the Royal Saxon Asylum at Sonnenstein. His method was first to weigh the brain (removed after the thoracic organs), then dissecting it after Meynert's method, to weigh separately, the brain muscle, brain stem, and cerebellum; next dividing the brain mantle, to weigh right and left hemispheres, later the frontal and temporo-parieto-occipital portions, and the basal ganglia of each hemisphere. His results are arranged according to the length of body of the patients in tabular form, being compared in the same table with the weights given Pflüger as normal for men in corresponding sizes. In other columns are placed the proportion of the weights of the different parts to the total brain weight, duration of the disease in months, and ages of the patients at death. His figures show that in long duration of the disease all parts of the brain lose weight, most of all the brain mantle and especially the frontal lobes, and that in the majority of cases there is a difference in weight between the two hemispheres, the right being more often the lighter. The article, a very comprehensive one, bristles with figures. It should be consulted in the original by those specially interested.—(Journal of Mental and Nervous Diseases.)—J. M. AIKIN, Omaha.

DUTY AND TRUTH.—Duty and truth are terms often used, frequently juggled, seldom, if ever, entirely comprehended. An article recently published in one of the leading medical journals of this country discussed at length the question so often considered from many view-points, and yet so differently settled by different observers, namely: Is it ever justifiable to state an untruth in the practice of medicine?—the question relating particularly to disease, and more directly to malignant disease. Many honest men, some of them the most distinguished of our profession, have concluded that it is justifiable to prevaricate, indeed to state an absolute untruth, under circumstances where it is considered that damage would seemingly be done the patient by stating the exact facts. That there may be no question where the writer stands, let it be said at the outset that he does not believe that falsehood is ever justifiable under any circumstances whatever, and to particularize, it is not justifiable in the practice of medicine; nor

does he believe that there is a situation conceivable where falsehood could in the end be more beneficial, all things considered, than the truth. We believe that the real point is lost in a great deal of the discussion. Were the question stated in this way, Is it the duty of a person to always speak the truth? a negative answer should be promptly given. Good sense and good judgment demand that the truth be not always spoken. There is a time, and this a fact too often overlooked, where to speak the truth is not only unnecessary, but uncalled for and unwise; nevertheless it does not follow that falsehood is necessary; the alternative under such circumstances is silence—silence at such a time is not only golden, for its value is measureless. The recognized standards of commercial exchange have no place in this estimate. We must assign silence with those things whose value all recognize as beyond calculation.

For generations it has been taken as a matter of fact by many physicians and their patrons that not only is falsehood justifiable, but an actual necessity, when dealing with diseases of the mind and with supposedly incurable maladies. Seldom is an insane person committed to an asylum without the most unscrupulous falsehood and unmeasured deceit. It is the experience of every physician,—almost daily experience,—that friends interested in the welfare of the sick will ask that if there is any serious disorder the person afflicted be not informed of the true nature of the malady, while the very anxious friends ask that they be told the whole truth. Under such circumstances how frequently do we find the most undesirable conclusion of the whole affair, because of the injudicious, incompetent and unwise manner in which these very unfortunate friends in the shortest conceivable time make known in the most harmful manner the real nature of the malady, to the one that they have avowed their heartfelt desire to protect and shield from alarm, for such busybodies invariably fail to keep a secret.

When asked to deceive or mislead a patient of ordinary intelligence, I almost invariably ask those making such a request if the patient is an idiot or weak-minded, for unless such be the case a conclusion in accordance with the facts will soon be reached by the one most concerned and infinitely more likely to the patient's damage than if the physician had quietly given the exact facts in their proper relation.

Truth in diagnosis; truth in treatment; truth in prognosis; truth in every act and thought is as certain to bring the best results in the end, as that God lives and justice reigns. It has been said that the old practitioner may speak the truth with impunity, but that a young physician dare not if he would hold his case, as if there could be a standard of right for certain periods of life or certain decades of medical practice.

It is not always easy to speak the truth, that must be admitted; and, as already said, it is not always necessary; but what medical man, that has tried the telling of falsehood with a view to make his way easy or the patient more comfortable, is there who will not say that telling a lie, while it may be easy at the time of its utterance yet brings as sure reward increasing hardship? The writer began his professional career under the firm belief that falsehood was justifiable under no circumstances, save where an anesthetic was being given, in which case he believed it was proper to use a little non-medical stimulation by using what has been designated as a white lie. More extended experience has brought the conclusion, and from it there shall be no turning, that even this supposedly exceptional situation is no exception. There is no condition where falsehood is justifiable any more than there is a condition where wrong is right, and if there is any part of a man's career to which he can turn his eyes with thankfulness and pardonable pride it is to that part of it unstained by falsehood. Truth is a living thing, and as such it grows. Frankness is a thing greatly to be desired. After all is said and done the doctor does not deceive his patient or anxious friends as often as he imagines, for though his lips may have framed a falsehood his face marked with the impress of anxiety and fear has told the truth. It is said in one of the ancient Vedas,

"We are what we have thought.
In thought our lives are wrought."

And again it is written, "As a man thinketh in his heart so is he." The subject under discussion is too large a one to treat in more than the most superficial way in the brief space of an editorial, but it is hoped that the questions here raised will so impress themselves upon the minds of those who read that they will not down until answered and answered right.

There is something more valuable than life itself and that is truth; truth, absolute truth, which makes for man's eternal destiny and has for its abiding place the bosom of an Infinite, Eternal, Unchangeable, Unslumbering God.—(Bell, in the Medical Herald.)—J. M. Aikin, Omaha.

Gynecology.

W. O. Henry, M. D., Omaha, Neb., Department Editor.

The Therapeutic Gazette for November 15 contains this interesting and important item:

"Puerperal Sepsis—Operative Treatment.—Being impressed with the fact that, with few exceptions, puerperal sepsis is a type of lymphangitis arising in the uterus which through the absorbents produced grave lesions in the remote organs, Pryor (New York Medical Journal and Philadelphia Medical Journal, August, 1903) decided to try a method which secures the sterilization of the original wound and accomplishes the absorption, by the affected lymphatics, of a potent yet harmless antiseptic. With this object in view, in thirty-seven cases he curetted the uterus and opened broadly the posterior cul-de-sac, packing both with iodoform gauze. This was done in the expectation of draining away pus, but in many, even the worst, cases there was nothing to drain away except serum, and yet the result was perfect. In thirty-six of the thirty-seven cases operated upon, streptococci, generally mixed with other germs, were found in the uterine cavity, while in all cases streptococci were found in the serum, lymph, or free pus from the cul-de-

sac. In all cases but one it was impossible to find a single coccus of any kind at the second dressing, and they were absent in the third dressing in this exception. In the absence of any large quantities of pus in these cases the iodoform is very rapidly broken up, under the influence of heat and the chemical action of the blood serum, producing prompt local iodism, which sterilizes the pelvis. In all the cases, enteroclysis, or intravenous infusion of normal saline solution, accompanied the operation for the purpose of facilitating the elimination of iodines and toxins by the damaged kidneys.

"Of the thirty-seven cases, twenty-seven of the patients had not been operated upon previously, and only one died, while ten had been subjected to curettage before coming under the author's care and three died; thus confirming the belief in the mischievousness of mere curetting in these cases.

"Not only is the mortality in this operation from this method of treatment much lower than by any other, but the morbidity is certainly less, as evidenced by three patients who have since borne children."—W. O. HENRY, Omaha.

THE London correspondent for the Medical Record gives the following information:

"Dr. Herbert Snow brought before the Gynecological Society a very rare specimen, viz., a 'soft edematous myoma' of Lawson Tait, complicated with three myomata of the ordinary type. Tait found this myoma always solitary; always steadily progressing toward death; accompanied by hemorrhage and painful. All this contrasts strongly with the ordinary multiple myoma. In Dr. Snow's specimen both forms coexist. There is a round, softish mass as large as a fetal head. When first seen in an out-patient, it was taken for an ovarian cyst, complicated with fibroids, but when the patient was anesthetized, it was found to be a solid growth—soft, very vascular, embryonic. The finger was easily pushed into the pulpy tissues. At each corner of the fundus, a hard, tough myoma of the size of an orange, sessile and interstitial, and behind one of them another, smaller, with a thin pedicle, form the complications. The microscope shows the myoma to consist of unstriped muscular fibres, with large nuclei and numerous leucocytes—in fact, to be much more embryonic in structure than ordinary myoma, and apparently passing into myosarcoma. There were no adhesions, but great vascularity of the tissues. The mass was dissected out from the cervix by a flap operation, and the flaps sutured. The abdominal wound was closed in two layers, after saline fluid was poured into the cavity. Recovery uninterrupted.

"Mr. Mayo Robson (chairman) commented on the rarity of the case. He thought he had met the combination, but in the absence of his notes, he could not assert that he had.

"Mr. Bowerman Jessett had seen one or two cases in which a soft myoma inside the uterus was present, with other fibroids outside.

"Dr. MacNaughton Jones said the specimen had the appearance of a large fibrous tumor enclosed in a capsule, and suggested that degeneration might account for differences in consistency.

"Some interesting cases involving the appendix vermiformis, were mentioned at the Gynecological Society, apropos of specimens shown by Dr. MacNaughton Jones of (*a*) an adnexal tumor with the appendix; (*b*) a large blood cyst of the right ovary, with left cystic ovary and hydrosalpinx. As to the first, Mr. C. Ryall said he was present at the operation, and the way the appendix was attached, not only to the Fallopian tube, but to the ovary and surrounding parts, was remarkable. He also mentioned a case of double pyosalpinx, on which he had just operated, in which he diagnosed implication of the appendix, and found it distended at its extremity beyond a stricture and adherent. The other tube being affected, both were removed. Mr. Jessett mentioned several cases of adnexal trouble involving the appendix; in one it was attached to the stump of an old operation; he agreed with Dr. Jones that it was well to examine the appendix in all operations for adnexal troubles. Mr. Mayo Robson had had at least three such cases. Lately he removed the appendix attached to the stump of a uterus removed twenty years ago by an eminent operator. In all cases with pain in the right ovary unaccounted for by prolapse, with tenderness between the anterior spine and the umbilicus, he examined the appendix, and that was one reason against vaginal operation for adnexal disease.

"Discussion as to another point in adnexal disease took place at the same meeting on a paper by Dr. MacNaughton Jones. The point was the propriety of conservative procedures in celiotomy for such cases. Should both ovaries be removed when there was only cystic disease in the second? To this Dr. Jones said no—but when there was doubt as to the prudence of a conservative procedure, and the probability of a future operation being necessitated, it was different. Nothing could justify the removal of sound adnexa, but if they were so diseased as to render the success of an attempt to save them improbable, they should be removed.

"Mr. Furneaux Jordon's experience was that conservative operations on one side had little chance of success when the other was incurably diseased, and it was rare to meet lesions warranting removal on one side with no disease on the other. He thought patients were less anxious than their surgeons to save their appendages.

"Mr. Mansell Moullin said the age of the patient should have some influence in doubtful cases. If over forty, he would remove them, but in a young woman, he would try to save them.

"Dr. Edge said a fairly healthy ovary need not be removed, even if the tube on that side must.

"Mr. O'Callaghan quoted Lawson Tait's dictum that if the appendages were not removed on both sides in such cases, a second operation was always required.

"Mr. Mayo Robson thought that Tait only referred to gonorrheal cases in that statement. For himself, Mr. Robson questioned if it was ever right to remove a healthy ovary because the other was diseased."—W. O. HENRY, Omaha.

A TEST for tobacco amblyopia is said to be inability to distinguish at a glance between gold and silver coins.

THE only Chinese hospital with Chinese doctors, Chinese medicine, Chinese nurses, and Chinese patients is situated on the border of Chinatown, San Francisco. It is, according to the Philadelphia Medical Journal, a large new two-story building, but recently erected. Up to this time a Chinese, unless afflicted with leprosy, in which case he was sent to the pesthouse, was not admitted to the public hospitals. Rich Chinese merchants subscribed $30,000, the income of which supports the present Chinese hospital. There is a daily clinic held in the hospital, with a resident white physician and surgeon. There is also a Chinese department with a Chinese doctor. As many as 400 cases are treated in a month, with only fifteen deaths. The hospital contains forty beds.

Dermatology and Genito-Urinary Diseases.

E. J. ANGLE, A. M., M. D., Lincoln, Neb., Department Editor.

DELAYED HEREDITARY SYPHILIS TREATED BY THE INTRAVENOUS INJECTION OF CYANID OF MERCURY.—(Solomon, Annal. de Med. et Chir. Infant., July 1, 1903, p. 461.) A little boy, five and one-half years, came under observation showing sypmtoms of undoubted hereditary syphilis. Inunctions of mercury and collargol proved ineffectual. Some months later an injection was made into the left median cephalic vein of 1 cc. of 1 to 100 solution cyanid of mercury. No appreciable improvement was noted. A second injection of the same amount was made into the right median cephalic vein, with the result that the labial, lingual and buccal patches improved considerably. After a third injection into a dorsal vein of the foot, the lesion healed rapidly, and finally disappeared, with no recurrence up to date.—(Archives of Pediatrics, Dec., 1903.)—E. J. ANGLE, Lincoln.

PRIMARY TUBERCULOUS EPIDIDYMITIS.—(M. Delli Santi, Abstract in New York and Philadelphia Medical Journal, Dec. 5, 1903.) Delli Santi shows the contention of Baumgarten, that an immovable bacillus, such as that of Koch, can scarcely travel from one end of the genito-urinary tract to the other, to be without basis. He injected cultures of tubercle bacilli into the urethra of dogs and found that fluid obtained from the testes of these dogs, when inoculated to guinea-pigs, produced generalized tuberculosis, and showed the presence of the tubercle bacillus in these lesions. In another series of dogs he first carefully ligated the spermatic cords with catgut, completely excluding the vasa deferentia, and then injected a culture of the tubercle bacillus in the same manner. He killed the dogs after a varying interval and found that the testicles were affected with tuberculosis in proportion to the time that had elapsed since the infection. The venous stasis which had been artificially created by ligating the vessels of the spermatic cord furnished a favorable condition for the infection. In the first experiments the testicles remained unaffected, though they contained tubercle bacilli, because the natural resistance of the tissues prevented the growth of the germ. An important feature shown in these experiments (second series) was that the epididymis was first affected, and that the canaliculi, and not the interstitial tissue, was first involved. This distinguishes the tuberculous process from the syphilitic. The fact that tuberculosis of the testis is more frequent on the left than on the right is explained by predisposition due to the arrangement of the vessels, which Delli Santi tried to produce in his ligations of the cord.—E. J. ANGLE, Lincoln.

SUPRASCROTAL OPERATION FOR VARICOCELE.—E. Styles Potter, M. D. (New York Medical Journal, May 2, 1903), says that the indications for operation in varicocele are:

1. Very large variocele causing perceptible deformity.
2. Pain in the tumor or obstinate reflex neuralgia.
3. Aberration of the sexual function.
4. Severe and obstinate dermic lesions of the scrotum.
5. Interference with the patient's occupation.
6. Atrophy of the affected testis.
7. Disease of the opposite testis.
8. Psychopathic symptoms.
9. Desire to enter public service, military, naval or civil.
10. Double varicocele, involving danger of serious impairment of the sexual function.
11. Variocele complicating hernia or hydrocele.
12. Rapid increase in size.

The operations performed for variocele are varied and numerous. Among some of the more common ones may be named the following: Excision of the scrotum; compression of the veins by pins and wires; subcutaneous ligature; Ricord's method of tying the veins; Rignaud's method of exposure and excision when the operation is performed through the scrotal tissue.

The operation which the author recommends is as follows: The incision begins at the external abdominal ring and proceeds downward for about one inch and a half, directly over the course of the cord, ending just above the scrotal tissue. The tissues are divided down to the cord, then the cord, the vas, artery, nerves and pampiniform plexus are drawn through the incision, and the vas and nerve separated, the veins, artery and connective tissue ligated above and below, and the intervening portion removed. The ligatures are left long, then a ligature is passed through the stumps and tied, which brings the two stumps in perfect apposition. Then the remaining long ends of the ligatures are tied, which brings the point of contact in perfect end to end apposition and acts as a natural suspensory for the previously dragging testis. The cord is then returned and the external wound closed.

The advantages of this operation over others thus far noted are:

1. The incision is made above the scrotal tissue, thereby permitting a far neater dissection and less manipulation of the parts, with the resultant dangers of oozing reduced to the minimum.
2. The relations are more easily discovered, which

renders the operation possible in about one-half the time of the open scrotal operation.

3. A better application of the dressings is possible in this position than can possibly be obtained in the operation on the scrotum, thereby reducing to a minimum all danger of infection occurring through displacement of the dressings.

The principal dangers to be encountered in the varicocele operation are scrotal hematocele, phlebitis, and septic infection. Thrombosis and embolism are remote possibilities.—E. J. ANGLE, Lincoln.

EXPERIMENTAL RESEARCHES AMONG THE ANTHROPOID APES.—(Roux and Metchnikoff, Rev. Prat. des Mal. Cut., Syph. et Veneriennes, Sept., 1903.) The study of certain human diseases by experimental research in animals being rendered of but little avail on account of the immunity the test animals in ordinary use apparently enjoy against these diseases, led MM. Roux and Metchnikoff to make use of the anthropoid apes, which are the animals most closely resembling man, in pursuing their investigations on diseases purely human.

In their first experiment a portion of melano-sarcomatous tissue was introduced into the anterior chamber of the eye and subcutaneous tissue of a young chimpanzee. The sarcomatous tissue did not undergo rapid resorption as in the test animals (rabbits, guinea-pigs, etc.). Ten weeks later no tumor had made its appearance, the animal remaining well. Attacked eventually with broncho-pneumonia, it died in mid-winter with symptoms of this disease, but without any manifestation of melano-sarcoma.

In their second experiment they inoculated a young female chimpanzee with the virus of syphilis. The very numerous experiments which have been made to produce syphilis in animals have, up to the present time, produced negative or very imperfect results. The chimpanzee was inoculated twice—the first time by epidermic scarification in the fold of the prepuce of the right side of the clitoris with poison from an indurated chancre of about a month's duration. The same day, in the same way, on the edge of the right eyebrow, a further dose from a second patient, the subject of ulcerating mucous tubercles of the prepuce in the neighborhood of a healed indurated chancre. Five days after the two first inoculations the chimpanzee was reinoculated in the fold of the prepuce of the clitoris on the left side with the scrapings of an indurated chancre of three days' duration only. The three inoculations gave rise to no immediate lesion. The portals of entry of the poison closed without leaving any trace. For the first three weeks there was no manifestation whatever; but the twenty-sixth day after the introduction of the virus there appeared on the right side, near the clitoris and at the point of inoculation, a small oval, transparent vesicle, surrounded by a somewhat red zone. During the following days the vesicle became a punched-out ulcer in the center of a very distinctly indurated tissue, the base of the form of a rounded plaque, the color of ochre. In a short time the ulcer became covered with a gray false membrane with very distinct margins. The glands in the groins began to enlarge, and some days after the development of the indurated chancre those of the corresponding side showed a very marked hypertrophy. Palpation gave rise to no pain.

During the forty-six days of observation no secondary syphilitic manifestation has shown itself. But the facts noted above appeared to be of sufficient interest to warrant an examination of the animal being made by several syphilographers, among them Prof. A. Fournier, Drs. Dantos, Queyrat, and Salmon, without waiting for further results.—E. J. ANGLE, Lincoln.

Eye, Ear, Nose and Throat.

S. E. COOK, M. D., Lincoln, Neb., Department Editor.

OPERATING ON DEFORMED SEPTA IN CASES OF ATROPHIC RHINITIS.—Kate W. Baldwin read a paper on this subject before the last meeting of the American Medical Association (Jour. A. M. A., Jan. 9) in which she believes that heredity plays a very important part in the causation of the trouble. If it cannot be traced directly to the father or mother, investigation will trace it to uncles or aunts or to grandparents. The fear of aiding destruction of tissues to a space already too roomy has prevented many operators from correcting septal deformities. The writer believes that if the space were equalized and their presence did not tend to retention and render the removal of the secretion more difficult, they might prove a benefit. The retention of the secretion is a constant menace to the entire tract, especially to the accessory sinuses. For the general improvement of the patient probably more depends upon the betterment of the local condition; in fact constitutional treatment frequently results in failure, whereas local treatment relieves most of the symptoms. The writer does not advocate neglect of the usual cleansing, disinfecting and stimulating treatment, most of which must be done by the skilled physician. After thoroughly cleansing the parts she would operate first on the sinuses of the roomy side if they are involved. She would then correct the septal deflections, removing only enough of the thickening to bring the septum into the medium line. Change the splints frequently and equalize the pressure. She urges against the use of pins in atrophic septa. The earlier a septum is straightened the quicker and better are the results. In the rare cases where the process has run its course and the turbinal tissue is entirely destroyed and the secretion has ceased to form with its resulting characteristics, the writer thinks it wise to let well enough alone. In some 3,000 cases she finds that deflected septa with or without spurs and ridges are almost invariably associated with loss of turbinal tissue, but that in true atrophy, as a rule, one fossa is more roomy than the other and the atrophy is more advanced on the roomy side.—S. E. COOK, Lincoln.

INTRA-ORBITAL INJECTIONS IN SYMPATHETIC OPHTHALMIA.—In sympathetic ophthalmia, especially in the type which assumes the form of a serous iritis or choroiditis, treatment by subcutaneous injection and inunction of mercury often fails to prevent the prog-

ress of the disease toward blindness. Moreover, these methods involve saturating the system with great quantities of the therapeutic agent in order to impress the diseased organ. Assuming that the disease is due to an infection, is it not more rational to inject the remedy at the site of the infection? Darier and others advocate the injection of mercurial salts into the cellular tissue of the orbit of the enucleated eye, and subconjunctival and intra-tenonian injections of sublimate in the sympathizing eye.

Valois (Recueil d'Ophthalmologie) reports two cases in which the classical methods proved to be unavailing but in which improvement followed the first intra-orbital injection; in both cases enucleation of the exciting eye instead of helping the condition of the sympathizing eye seemed to give a fresh impetus to the disease.

Case I.—The sympathizing eye presented a cloudy aqueous, deposits on Descemet's membrane and posterior synechiæ. The fellow eye (staphylomatous following an iridectomy) was enucleated, and the optic nerve resected as far back as possible. Under atropia locally and subcutaneous injections of cyanate of mercury, the deposits on Descemet's membrane increased, flocculi appeared in the vitreous, and vision diminished to 2-10. At this stage six drops of a solution of cyanate of mercury (1 centigm. to 1 c.c.) was injected into the cellular tissue of the orbit of the enucleated side. The following day vision had risen to 4-10, but had diminished again by evening. Five injections at intervals of two days were given, each producing slight, but transient improvement in vision. The case passed through a period of increased intra-ocular tension (controlled by eserin), alternating with exacerbations of iritis with the formation of synechiæ (controlled by atropia). From this time on improvement was rapid and vision ultimately rose to normal.

Case II.—Sympathetic ophthalmia following penetrating wound at sclero-corneal margin. Enucleation and exhibition of the usual remedies failed to check the disease, the symptoms including muddy aqueous, descemetitis, chemosis, edema of the lids, severe pain and diminished vision. Intra-orbital injection of cyanate of mercury was followed, in twenty-four hours, by subsidence of the pain and disappearance of the chemosis and edema of the lids. Pupils dilated ad maximum, and vision improved. Injections were continued tri-weekly for a fortnight, and then replaced, on account of unbearable pain, by intravenous injections. Ultimate vision, 8-10.

The method has the disadvantage of being very painful and of producing at times an edema of the corresponding side of the face.—Medical Review of Reviews.

CHRONIC SPHENOIDAL SINUSITIS.—Albert E. Rogers (Boston Med. & Surg. Jour., Dec. 31) concludes that this disease is much more frequent than is generally supposed. In an examination of 600 patients from the throat clinic of the Massachusetts General Hospital he found twenty-nine cases of accessory sinus disease, or nearly 5 per cent. In the twenty-nine cases the antrum of Highmore was affected four times; the frontal sinus once; mixed frontal and ethmoid twice, the ethmoid five times and the sphenoidal sinus sixteen times. This makes empyema of the sphenoid by far the most frequently affected of any of the sinuses, which is contrary to the opinion of most observers. Bosworth states that true primary disease of the sphenoid cavity is very rare and considers that ethmoidal sinuses are more commonly affected.

The sphenoidal sinuses are located in the body of the sphenoidal bone, being usually two in number and separated by a delicate septum. Ordinarily the cavity is limited by the spheno-ethmoidal fissure. In most cases the opening is so high up that it is impossible to see the opening in the cavity, due to the obstruction of vision by the middle turbinate. The size and shape of the cavity is extremely variable in different individuals. The upper and posterior wall is of extreme thinness and is in intimate relation with the cavernous sinus. The writer makes his diagnosis of sphenoid disease mainly with the probe. Pus in the olfactory fissure usually indicates trouble in the sphenoidal sinus or in the posterior ethmoidal cells, although sometimes it may be due to trouble in the antrum of Highmore or the frontal sinus. It also may be due to tubercular caries of the superior turbinate or to primary atrophy of the mucous membrane.

In determining the location of the trouble he first eliminates the last two causes and investigates the cavities. The probe is passed in a direct continuation of the line from the inferior nasal spine to the middle part of the middle turbinate. It must not go anterior to this line nor under the sphenoidal cavity. The distance from the inferior nasal spine to the anterior sphenoidal wall is never more than 7½ cm. If the probe goes a greater distance it enters either the sphenoidal sinus, the brain cavity or the naso-pharnyx. The probe should be bent with a slight horizontal concavity in order to pass around the convexity of the middle turbinate. Having entered the cavity, and feeling roughened bone or spongy granulation tissue, a diagnosis of sphenoidal disease is made. The symptoms of sphenoidal disease are in the main obscure: somnolency, a numbness of the upper lip and general nervousness, cough, deafness, chills, vertigo, diffuse pain in the head, pain in back of head, deep-seated pain back of the eyes, and, finally, post-nasal discharge which usually has been treated as ordinary "catarrh." The writer opens the sphenoidal cavity by first thoroughly cocainizing the nose and removing a piece of the middle turbinate anteriorly by Knight's cutting forceps. The attachment of the turbinate with the outer wall is first severed and the body of the bone is separated with a twisting movement. The hemorrhage is usually quite profuse, and as a part of the after-treatment he directs the patient to use a spray of 1-1000 adrenalin solution. The path is now opened to the sphenoid sinus. In about ten days the sinus is opened by an especially made forceps constructed on the principle of Grunwald's downward cutting forceps. The upper jaw of the instrument is passed into the sphenoidal opening in the same manner as a probe.

The jaws are brought together with firm pressure and a piece of the anterior wall is brought away, establishing a free drainage. This usually produces complete relief and the author has not found it necessary to curette and syringe out the cavity.—S. E. COOK, Lincoln.

Society Proceedings.

THE committee on arrangements of the next meeting of the Nebraska State Medical Association are Drs. J. M. Aikin, B. B. Davis, and Le Roy Crummer, of Omaha.

THE Elkhorn Valley Medical Society held their annual meeting in Fremont the 6th of January. The officers elected were: J. J. Williams, of Wayne, president; F. L. Frink, of Newman's Grove, first vice-president; H. P. McKnight, of Long Pine, second vice-president; F. A. Long, of Madison, secretary; W. H. H. Hagey, treasurer. There were ten new members added to the roll. Thirty-two physicians attended the meeting. Thirty physicians enjoyed the hospitality of the Dodge County Medical Society at 7 p. m. around the banquet table. The Elkhorn Valley Medical Society expressed their appreciation of the hospitality extended by the Dodge county physicians by a unanimous vote of thanks. Such coming together by physicians from adjoining counties is of great social and professional benefit to medical men.

J. M. AIKIN, Secretary.

THE Nemaha County Medical Society met in the office of Dr. I. H. Dillon, of Auburn, Neb., on the afternoon of November 18. This was the first meeting in some time. There was no formal program, but Dr. J. W. Bullard, of Pawnee City, councilor for the third district, gave an informal talk, urging the importance of a more thorough organization of the physicians into medical societies, for the furtherance of medical science, social intercourse among the members of the profession, and for the general welfare of the public. Much interest was manifested in the future utility of the county organization in Nemaha county. Another meeting was announced for the near future, a program arranged, two additions were made to the membership and everything promises well for the future of the Nemaha County Medical Society. Those present were J. W. Bullard, Pawnee; I. H. Dillon, E. M. Tyler and H. I. Lutgen, Auburn; W. J. Raynor, South Auburn; B. F. Lorrance, Brock; S. J. Crudup, Julian; and J. S. Wilson, Johnson.

A MEETING of the Richardson County Medical Society was held in the council chamber of the new library building at Falls City, Neb., on the evening of November 25. It was the intention of the society to hold monthly meetings, but this was the only meeting held for several months. The members present were quite enthusiastic for better things in the future. There are a large number of physicians in Richardson county, and there is no reason why there should not be a flourishing medical society, and there is every reason to believe that this will be the case in the future. As no program had been prepared for this meeting, Dr. J. W. Bullard, councilor for the third district, who was present, addressed the meeting for nearly an hour. The doctor set forth the great benefits to be derived from a scientific, social and political standpoint, from the frequent intercourse of the members of the medical profession, and urged that each physician in the county become a member of the society. There were two new names proposed for membership. There were present from Falls City Drs. Burchard, Keller, Fleming, Houston, Wiser, Keeler and Reneker; from Humboldt, Drs. Morris, Marsh and Wilson; and from Dawson, Dr. Waggner.

THE Pawnee County Medical Society held its regular quarterly meeting in the office of Dr. A. B. Anderson, at Pawnee City, on the evening of December 7. This society has held regular meetings ever since its organization. The meetings are well attended and much interest taken in the reading and discussion of papers. Every regular physician in the county belongs to the society, Dr. H. S. Brevoort, of Du Bois, who has recently purchased the practice of Dr. H. L. Akin, being recently elected to membership.

It is the custom of the society to have some member of the profession from a neighboring county present a paper at its meetings. At this meeting Dr. I. N. Pickett, of Odell, read an interesting paper on "Medical Societies." The doctor advocated, among other things of value, the inauguration of a "quiz" in connection with the meetings; which should be conducted in such a manner that no one's ignorance would be publicly exposed, and yet be of much interest and practical benefit to the members.

Dr. W. H. Wilson, of Table Rock, presented a paper on "The Coal-Tar Products in the Essential Fevers." The doctor said he thought that, judiciously used as remedies to control the pyrexia, they were safe, but no fast rule could be laid down, the personal equation of the patient should always govern the use. The paper provoked quite a discussion and many of the physicians present took issue with the doctor.

Dr. A. G. Emerson, of Lewiston, read a paper entitled "The Physiological Action of Drugs in Pathological Conditions." The doctor referred to the tests of drugs made on animals, and said they were likely to lead to wrong conclusions when used in pathological conditions. Thought the future had many surprises for us in the field of therapeutics. Therapeutics would be reduced to a scientific basis, when drugs would be used as specifics in the same sense that quinine is a specific for malaria.

The election of officers for the year 1904 resulted as follows: President, W. H. Wilson, Table Rock; vice-president, A. G. Emerson, Lewiston; secretary, F. W. Plehn, Burchard; censor, A. G. Emerson; treasurer, T. C. Hollister, Steinauer.

The next meeting will be held at Lewiston the first Monday in March. An open meeting will be held to which the public will be invited, and such subjects discussed as will be of interest and advantage to the laity.

NO REVIEW

of therapeutic progress would be complete without a reference to the unique value of

GRAY'S Glycerine TONIC Comp.

in malnutrition, anæmia, respiratory disorders, nervous exhaustion, general debility.

THE PURDUE FREDERICK COMPANY,
No. 15 Murray Street, New York.

The Age of Antisepsis

DOCTOR, this is pre-eminently the age of ANTISEPSIS, but the problem is how to secure that in a manner at once the most convenient and harmless, and at the same time accompanied by such an effect upon the tissues as to lead to rapid healing.

In TYREE'S ANTISEPTIC POWDER you will find a combination so skillfully made that it is destructive to pathogenic bacteria and yet bland and unirritating to the most delicate mucous membrane, and its application is accompanied by such a mild degree of stimulation and astringency as to promote the rapid healing of the tissues with which it comes in contact.

It has been used very successfully in Uterine and Vaginal Catarrhs, Gonorrhea and Gleet, in Dysentery, in Catarrhs of the Nose and Throat, and in Inflammation of the Mouth and Gums. Its great economy and convenience consists in the fact that you add the water yourself—paying for only the Antiseptic Powder. Thousands of physicians are making successful use of it every day. If you will only try it you will be quickly convinced of its great value.

War Department
Surgeon-General's Office Washington, D. C., Jan. 3, 1890.

This is to certify that the exact antiseptic strength of "Tyree's Pulv. Antiseptic Comp." is one part of the powder to fifty of water (1:50). Test-tubes containing peptonized beef broth were charged with the powder. (Tyree's Antiseptic Powder.) The solutions were then inoculated with the Anthrax Bacillus, and with the Staphylococci of Pus, and the tubes placed in the incubator for 48 hours at a temperature of 38° C. On removing tubes from the incubator, it was found that in the solutions of one in ten to one in fifty there was no development of bacteria.

W. M. Gray, M. D., Microscopist to Army Medical Museum.

If unfamiliar with this preparation, write for a trial package, which I shall take much pleasure in sending you free of all charge.

Half-Pound Box, Postpaid, 80 cents.

J. S. TYREE, Chemist, Washington, D. C.

Digestion First

You *must* consider digestion. If foods pass through inert, all treatment necessarily will fail. The whole system of the emaciated, tubercular and neurotic patient cries out for fat. Nothing but fat will satisfy.

Debilitated organs can not digest ordinary emulsions and plain cod-liver oil; while extractives are often irritants. Hydroleine is right in principle and presents the requisite fat in such a form that the weakest digestive organs accept it and grow stronger.

Prescribe Hydroleine and you will know this to be a fact.

Literature sent on application. Sold by druggists generally.

THE CHARLES N. CRITTENTON CO.

Sole Agents for the United States,

115-117 FULTON STREET, NEW YORK.

No Ice-Cream Soda in Berlin.—The municipal authorities of Berlin, with a fatherly solicitude for the stomachs of the burghers entrusted to their guidance, have issued a decree that no iced drinks shall be sold in any place of public refreshment in that city. The limit of frigidity allowed is 10° C., or 50° F.—Medical Record.

The effect of ether anesthesia on the kidneys has been supposed by some to be very irritating, so much so that ether should never be given to patients suffering from nephritis. Influenced by the statement of a surgeon of experience that he would not operate in the presence of albumin and casts except in cases of great necessity Dr. John C. Munro (Transactions of the American Surgical Association, 1903) investigated the records of 4,185 patients who have been treated in the surgical wards of the Boston City Hospital within three years. He found albumin and casts in the urine of 500 patients who were not suffering from obvious renal degeneration. Practically every form of injury and disease was included in the series, the majority being of a serious nature. Of these patients 60 per cent. underwent operation, 12 per cent. suffering from fracture and in many cases etherization was for long operations. The cause of albumin and casts was difficult to determine. The use of alcohol, insufficient or improper food, and hard work are suggested as possible causes of renal irritation. Sepsis seems to be a factor of some importance, for in a number of cases the albumin and casts disappeared as soon as drainage was established. The recoveries were as satisfactory as could be desired and there were no complications but which might adequately be explained on grounds independent of renal lesions. Postmortem examination showed no condition which would indicate that the kidneys were the cause of the fatal result except in two cases out of sixty-three. Munro concludes that we should expect evidence of renal irritation in over one-third of the surgical patients in a municipal hospital. A trace of albumin with or without hyaline and granular casts, unattended by other evidence of renal degeneration should not influence the prognosis in surgical disease or operation. The proportion of young and otherwise healthy people affected is as great as in adults. Albumin and casts alone are apparently no contraindication to the administration of ether. This paper seems of great practical importance. Ether is now generally acknowledged to be a much safer general anesthetic at the time of operation than chloroform or any of the other usual general anesthetics. A considerable number of surgeons, however, have adhered to chloroform as the best general anesthetic because they have believed that the effect of ether on the kidneys and lungs is dangerous enough to counterbalance the greater safety of ether at the time of operation. This opinion does not seem to have been founded on any very definite information and up to this time few if any have taken the trouble to study the effects of ether anesthesia in a large series of cases as Munro has done. Very often careful study of cases and accurate observation give us quite a different view of a condition than we have gained by more superficial observation. No doubt in many cases the albumin and casts, which Munro shows, exist in a considerable proportion of cases quite independent of the use of any anesthetic, have many times been unjustly attributed to the use of ether. If as his contribution seems to show, ether usually has no effect on the kidneys, its much greater safety at the time of operation certainly entitles it to the favor which it has enjoyed with a large proportion of American surgeons, in spite of the contrary opinion of most British and Continental surgeons. —American Medicine.

Leube's Stomachic Powder—

Pulv. rhubarb	20 parts
Sodii sulf. exsic.	5 parts
Sodii bicarbonatis	5 parts

—Med. Pharm. Critic and Guide.

Lotion for Cracked Lips—

Glycerin	4.0	(66 min.)
Carbolic acid	1.0	(16 min.)
Cherry laurel water	4.0	(66 min.)
Saturated solution of boric acid, enough to make	500.0	(1 pint)

Apply freely with finger.—Critic and Guide.

An Open Letter to Physicians.

DEAR DOCTOR:

All we ask is the privilege of sending you this book so you may use it as a ready reference whenever you need anything in the line of Surgical Instruments and Physicians' Supplies.

Would you invest one single cent in order to save for yourself hundreds of dollars annually? A postal card mailed to us today will bring to you by return mail, postage paid, this complete catalogue of 144 pages, with 3,000 illustrations and 20,000 quotations, a very valuable book of information, which should be in the library of every physician and surgeon. Without this catalogue to refer to, you would almost invariably pay double as much as there is need to pay for articles which constitute your professional requirements.

This complete book, the most comprehensive and up to date catalogue of staple surgical instruments, physicians' glassware, medicine cases, obstetrical bags, hard and soft rubber goods, supporters, bandages, dressings, ligatures, sutures, drugs and chemicals, pills, fluid extracts, syrups, elixirs, tinctures, X-Ray apparatus, genuine McIntosh batteries and accessories, etc., is thoroughly illustrated, each item correctly described and shows our astonishingly low prices on the entire line, prices that have proven a revelation to physicians and surgeons, and at the same time the most formidable competition surgical instrument and supply houses have witnessed in the history of the trade; a veritable bombshell in the camp of the instrument dealers throughout the country.

This catalogue mailed free, postage paid, on application.

LIST OF CONTENTS:

Surgical Instruments
Amputating Cases
Obstetrical Bags
Hard Rubber Goods
Hypodermic Syringes
Galvanic and Faradic Batteries
Physicians' Glassware
Ligatures
Sponges and Brushes
Braces
Supporters
Invalid Roller and Reclining Chairs
Pills
Syrups
Ointments
Tinctures
Pocket Instrument Cases
Medicine Cases
Soft Rubber Goods
Thermometers
Hypodermic Needles
Medical Electrical Goods
Surgical Dressings
Sutures
Trusses
Bandages
Suspensories
Tablets
Fluid Extracts
Elixirs
Solutions
Drugs and Chemicals

In three months, through the medium of this catalogue alone, and as a result of the extremely low prices we are quoting on the highest class of goods it is possible to manufacture, we have built up the largest business in this line in the United States. We have secured the trade of more than 28,000 physicians and nearly one-half of the leading hospitals in this country, and we now have a larger list of customers among the medical fraternity than the specialty houses that have been in business from ten to twenty-five years. We are today supplying some of the largest hospitals and some of the most prominent physicians and surgeons in nearly every leading city. We have an enormous trade established; we are enabled to close the largest contracts placed with the best manufacturers here and abroad, and our position in this department is absolutely unassailable; yet an effort is being made to prevent us from supplying you at a fair but reasonable profit; to compel you to pay unnecessarily and unreasonably high prices.

Will you submit to this, doctor, when we are not only willing, but in a position to protect you?

The revolution that we have effected in the prices at which articles that the doctor needs in his daily practice have heretofore been sold, is responsible for the formation of a combination of dealers in surgical instruments and physicians' supplies, organized in Chicago during October, to stop our progress and for the purpose of compelling the physicians of this country to continue paying exorbitant profits for their instruments and supplies.

A boycott against manufacturers who supply us is to be instituted unless they prevail upon us to advance our never before heard of low prices on reliable standard goods to the high prices the local dealer charges now and which are in many cases more than double the prices quoted in our catalogue.

The quality and reliability of our goods is not questioned by the surgical instrument trade in general. They know our goods are right and they are willing to admit that, but they object to our supplying you at a smaller profit than they are willing to accept. It is, of course, the right of every merchant to say at what profit he wants to sell his goods, but is it fair to form a combination or trust for the openly declared purpose of making the physicians pay not only their present established high prices but an additional advance of 20 per cent? Such an organization, which is practically a trust, will stipulate and dictate the prices at which members of the combination must sell to the physician, subject to heavy fines and expulsion from the combination for any violation of their rules, practically preventing the dealer who might be willing to supply goods to you at a reasonable profit from doing so.

This combination is intended to include every manufacturer of surgical instruments and physicians' supplies, and all must agree not to sell to Sears, Roebuck & Co.

Doctor, do you know what this means? Do you realize the importance to you of this proposition? Do you relish the idea of this combination that holds up the physicians and compels them to pay enormous prices for their supplies? There is no valid reason why you should pay unreasonably high profits on the goods you use in the pursuit of your profession. For example, if we can furnish you with the highest grade Imported Surgeon's Needles at 23 cents per dozen, which price allows us a fair margin of profit, should you be compelled to pay 50 cents to 60 cents for the exact same item? When we sell the Genuine Ermold Tonsilotome at $2.75, for which others charge $4.00; the Genuine Spiral Curette, selling at $2.50; our price, $1.25; the Genuine Esmarch's Chloroform Inhaler, our price, 48 cents; dealers' price, $1.00; the Genuine Rochester Combination Sterilizers, $6.00 size, for $3.95; the best and most reliable Plastic Dressing at 24 cents per pound; Valentine's Irrigating Apparatus, complete, $3.80; Graves' or Miller's Genuine Wrought Metal Vaginal Speculum at 70 cents, Taylor's Genuine Wrought Metal Vaginal Speculum at 55 cents, Auvard's Weighted Wrought Metal Vaginal Speculum, $1.50; Genuine Elliott's Obstetrical Forceps, $2.50; Simpson's, same price; Van Buren's Steel Sounds, all sizes, 20 cents each; The Genuine Pin-Lock Hæmostatic Forceps, Peon's, 25 cents; Tait's, 30 cents; Genuine Weinhagen's Magnifying Index and Certified Thermometers, including case, 40 cents each; Kelly's Obstetrical Cushions, 20x44, $2.20, and all other goods in this line at correspondingly low prices, do you care to pay 50 to 100 per cent higher prices through the influence of any combination or trust?

No, it is not necessary, and we are here to protect you. We will stand between you and the grasping designs of this apparently powerful combination. We will make you independent of any trust that may be formed. You can buy the highest class goods manufactured in this line, absolutely standard qualities, from us under our most binding guarantee, under the most liberal terms ever offered, and at by far the lowest prices ever quoted, we are ready to supply you under these conditions. We have protected ourselves by long time contracts for standard goods and we will continue to protect the physician.

Let us send you our catalogue as illustrated above; send your application anyway; just write a postal if you wish, and say—"Send me your Catalogue of Surgical Instruments and Physicians' Supplies." It will be an interesting and valuable addition to your library, whether you ever avail yourself of our prices or not. Do not put it off; write now. A letter or a postal will do.

Yours very truly,

SEARS, ROEBUCK & CO.

CHICAGO, ILLINOIS.

Incorporated under the laws of Illinois.

Cash capital and surplus of Two Million Dollars, paid in full.

REFERENCES: National City Bank of New York, Second National Bank of Boston, First National Bank and Corn Exchange National Bank of Chicago; any Railroad Company, Express Company, Business House or Resident of Chicago.

LIQUID **Satyria** TABLET

The Ideal Genito-Urinary Tonic and Nerve Reconstituent

A palatable combination of the active constituents of Muira-puama, Saw Palmetto, False Bitter Sweet, Phosphorus and Aromatics.

Indicated in Prostatic Troubles, Cystitis, Urethritis, Sexual Debility and Impotency.
DOSE—One teaspoonful or one tablet four times a day after meals.
Full size bottle to physicians who will pay express charges.

Satyria Chemical Co., St. Louis, Mo., U. S. A.

A. H. Ohmann-Dumesnil, A. M., M. D., St. Louis Medical College, 1880; Member of the St. Louis Medical Society, Missouri State Medical Association, Clinico-Pathological and Mississippi Valley Medical Societies, Ex-President of the St. Louis Academy of Medical and Surgical Sciences, St. Louis, writes as follows: "I have prescribed Satyria in a number of cases of genito-urinary troubles, associated with various forms of nervous and genital asthenia, and have invariably obtained good results from its exhibition." Truly,
A. H. OHMANN-DUMESNIL.

GUDE'S PEPTO-MANGAN THE STANDARD.

Iron preparations spring up like mushrooms in a night. The one backed by clinical evidence in hospital practice is the old stand-by, Gude's Pepto-Mangan, which is the standard of known worth and which gives positive results.—Medical News, New York.

TYREE'S ANTISEPTIC versus bichloride, carbolic, etc. None of the objections to corrosive sublimate, carbolic acid and other agents of this class—namely, toxicity, chemical union with albumin, superficial effect only, change to inert compounds, corrosive action upon tissues, harm to metal instruments, injury to the hands, etc., prominent in medical literature, are experienced in the use of Tyree's Antiseptic Powder.

PAUTAUBERGE'S Solution and Capsules of Creosote Hydrochloro-Phosphate of Lime have been largely and successfully used for the past twenty-five years in almost every country of the world. Prominent physicians have found them the very best remedies for pulmonary and bronchital troubles, and they have the highest endorsements in the way of home testimony from many physicians in Paris and other parts of France. These preparations are now being introduced to the medical profession in this country by the American agent, G. J. Wallau, No. 2 Stone street, New York, who will furnish literature and samples to physicians who will pay expressage.

THE Dietetic and Hygienic Gazette, commenting upon the dietetic value of Iron, says: "Pathologists have given pointers as to the special condition of the iron in the system and in the circulating medium, and the newer preparations aim to imitate that condition. Most of them have a brief day of fame and then drop out of sight for the reason that they lack some element of eligibility. Few are standing the test of time and the critical ordeal of the clinicians. Foremost among these it is safe to name Gude's Pepto-Mangan. It is probably the nearest approach to a physiological reproduction yet devised. It deserves its universal popularity, and its manufacturers do well to restrict its sale to strictly ethical channels."

ATTENTION is invited to the large advertisement of Sears, Roebuck & Co., Chicago, Ill., in this issue, and their astonishing offer to mail entirely free of charge to any one of our subscribers, a copy of their 144-page Surgical Instruments and Physicians' Supplies Catalogue, a most comprehensive work.

This office has had the pleasure of inspecting one of these books and can pronounce it well worth the attention of every surgeon and physician in the land. The highest quality of goods in this line is illustrated and described, and we should judge from the prices quoted on these standard goods, the highest grades, that Sears, Roebuck & Co. must be receiving orders from every physician and surgeon who is fortunate enough to get a copy of their catalogue.

As a remedy in diseases of the mucous surfaces, S. H. Kennedy's Extract of Pinus Canadensis has successfully passed through the crucial test of practical experience. Recent observers have given it a place far in advance of that class of mineral astringents which have hitherto held a front rank in the treatment of mucous discharges, "especially vaginal and urethral," sores, ulcers, piles, sore throat, nasal catarrh, dysentery, diarrhea, and hemorrhages. While not altogether a new remedy, medical text-books have nevertheless thus far considered it in a very brief and cursory manner, and the great favor it now enjoys among those who have used it, has not yet extended, we believe, throughout the medical profession in its entireness. A knowledge of its merits should be, therefore, more thoroughly disseminated, since an intimate acquaintance with its virtues means an improved method of treatment of diseases heretofore particularly obstinate and intractable.

CAUTION!

Sander & Sons' EUCALYPTOL (Eucalypti Extract)

We received quite recently the following communication from **Dr W. H.** Mayfield, Loulsville, Ky. He says: "I have been using Eucalyptus, depending upon our drug stores, which have been furnishing me the commercial article, which is of uncertain strength, and disappoints."

To guard the high reputation our product has acquired all over the civilized globe, through the most scrupulous attention to all the details in the process of production, we repeat here once more and state again: **"That we are the sole manufacturers of Eucalyptus Essence who employ exclusively the leaves of the plant in gaining the article known as 'Sander & Sons' Eucalyptol' (Eucalypti Extract)."** In consequence it is impossible to obtain "Eucalyptol proper" (the essence of the leaves) from any other source, or the results the physician expects from any other manufacture. The application of Eucalyptol proper is so positive and distinct in results that no doubt must be entertained as to ultimate success. And if, nevertheless, disappointments be experienced, they rest with spurious articles supplied the physician in place of our product. This forms ample proof how imperative it is **"That the physician in prescribing specifies our product and insists upon receiving it."**

Our agents, Messrs. Meyer Bros. Drug Co., of St. Louis, Mo., have consented to fill, postage prepaid, orders for one original package (one ounce) on receipt of One Dollar. We beg to order from them. One test will at once convince and serve as safeguard. The difference is too striking and allows of no mistake.

Samples and literature of Sander & Sons' Eucalyptol (Eucalypti Extract) gratis, through Meyer Bros. Drug Co., St. Louis, Mo., Agents.

Sander & Sons, Bendigo, Australia

Pharmaco-therapy

By DR. P. E. KOERBER

Small size book, handy for pocket, written especially for the practicing regular physician. Metric system.
Price, $1.00. Address

DR. P. E. KOERBER,
Yutan, Nebraska.

For Sale—LOCATION. A snap for good physician. Will bear investigation. Price, $700 cash. $3,000 practice; good country; no opposition. Write for full particulars to S., care of Medical Review, Lincoln, Neb.

Practical Gynecology

A PRACTICAL BOOK FOR THE PHYSICIAN IN GENERAL PRACTICE

By W. O. HENRY

Professor of Gynecology in the Creighton Medical College, Omaha

CONTENTS BY CHAPTERS

I. Definitions and General Remarks.
II. Etiology of Female Diseases and Names of Parts Involved.
III. Mammary Glands.
IV. Vulva, Perineum, and Anus.
V. Vagina.
VI. Uterus.
VII. Fallopian Tubes.
VIII. Ovaries.
IX. Menstrual Disorders.
X. Sepsis Following Abortions or Labor.
XI. Pelvic Peritonitis.
XII. Leucorrhea.
XIII. Extrauterine Pregnancy.
XIV. General Diseases.
XV. Cystitis.
XVI. Operations.

Sent carriage prepaid on receipt of Two Dollars, or the book will be sent FREE for examination.

Address

THE REVIEW PRESS

Lincoln, Nebraska

Now Ready — Second Edition

DR. MASON'S BOOK:

—THE—

Office Treatment

—OF—

Rectal Diseases

Enlarged, more freely illustrated, printed on better paper, improved in every way. New chapters on Rectal Cancer, Local Anesthesia, and Reflexes from Rectal Disease.

SENT POSTPAID ON RECEIPT OF PRICE. $1.50

THE REVIEW PRESS

Lincoln, Nebraska

Vapo-Cresolene

The Atmistopharmacon

FOR

WHOOPING COUGH

℞	Vaporized Cresolene at night. Plenty of Fresh Air during the day. Much Nourishing Food.

FOR TWENTY YEARS this treatment has resulted in quick cures without complications. It insures strengthening repose while being used.

Bacteriological tests by C. J. Bartlett, M. D., of the Pathological Department of Yale University, show that vaporized Cresolene kills the germ of diphtheria. Its action is curative and prophylactic and hastens convalescence in this disease.

Cresolene is germicidal and sedative in its action on the mucous membrane. The air rendered antiseptic enters where liquid from sprays or nebulizers cannot. A 1% solution of Cresolene in water kills the germs of diphtheria, typhoid fever and pus in one minute.

The diseases in which the properties of Vapo-Cresolene have been especially utilized are whooping cough, croup, bronchitis, influenza, hay-fever, diphtheria, the bronchial complications incident to measles and scarlet fever, and in allaying the dyspnœa and irritating cough in pneumonia.

Literature on application.

We allow 25% discount from retail prices to physicians, and will prepay express charges on first order for one Vaporizer complete.

THE VAPO-CRESOLENE CO.

180 Fulton Street ....NEW YORK

The Family Laxative

THE ideal safe family laxative, known as "SYRUP OF FIGS," is a product of the California Fig Syrup Co., and derives its laxative principles from senna, made pleasant to the taste, and more acceptable to the stomach, by being combined with pleasant aromatic syrups and the juice of figs. It is recommended by many of the most eminent physicians, and used by millions of families with entire satisfaction. It has gained its great reputation with the medical profession by reason of the acknowledged skill and care exercised by the California Fig Syrup Co. in securing the laxative principles of the senna by methods of its own, and presenting them in the best and most convenient form.

The California Fig Syrup Co. has special facilities for commanding the choicest qualities of Alexandria senna, and its chemists devote their entire attention to the manufacture of the one product.

The name "SYRUP OF FIGS" means to the medical profession the "family laxative, manufactured by the California Fig Syrup Co.," and the name of the company is a guarantee of the excellence of its product.

Informed of the above facts, the careful physician will know how to prevent the dispensing of worthless imitations when he recommends or prescribes the original and genuine "SYRUP OF FIGS."

It is well known to physicians that "SYRUP OF FIGS" is a *simple*, *safe*, and *reliable* laxative, which does not irritate or debilitate the organs on which it acts, and, being pleasant to the taste, it is specially adapted to ladies and children, although generally applicable in all cases. Special investigation of the profession invited.

"SYRUP OF FIGS" is never sold in bulk. It retails at fifty cents per bottle, and the name "SYRUP OF FIGS," as well as the name of the California Fig Syrup Company, is printed on the wrappers and labels of every bottle.

CALIFORNIA FIG SYRUP COMPANY

San Francisco, Cal.; Louisville, Ky.; New York, N. Y.

Painful Monthly Periods

Many Doctors Prescribe

a combination of DIOVIBURNIA and NEUROSINE (equal parts) to abate the PAIN and NERVOUSNESS of DYSMENORRHEA. DIOVIBURNIA acting as a reconstructor of the parts affected, NEUROSINE allaying the pain, RESUSCITATING and TONING the Nervous System. Physicians can prescribe

DIOVIBURNIA and NEUROSINE

with impunity, as these products CONTAIN NO OPIUM, MORPHINE, CHLORAL, or other deleterious drugs.

Full size bottle of each, free, to physicians (who have not already received same) desirous of giving DIOVIBURNIA and NEUROSINE an impartial trial, they paying the express charges.

DIOS CHEMICAL CO., ST. LOUIS, MO.

DRAGÉES GÉLINEAU

The Dragees Gelineau constitute the most appropriate medication for the treatment of epilepsy. Their action is manifest in that peculiar neurasthenia which is neither hysteria nor hypochondria, and which prevails among women at the menstrual epoch or at the change of life.

SIRUP CELINÉAU

Whenever it is necessary to induce a beneficent sleep and to act against insomnia caused by hysteria, neurasthenia, neuralgia, convulsions, or delirium, the Sirup Gelineau will be found of supreme importance and of heroic action.

Dragees Gelineau are an antinervine agent of the most rational type, being an association of Bromide of Potassium, Arsenic and Picrotoxine. The Bromide diminishes the reflex sensibility of the nervous system, and the congestive predisposition of the cerebrum in epilepsy. The Picrotoxine has its action on the convulsive and spasmodic tendencies of neurotics, and finally the Arsenic is the repairer of the nerve cells.

GEO. J. WALLAU, U. S. Agent, - - - 2 and 4 Stone Street, New York

THERE ARE SEVERAL GOOD APERIENT WATERS;
SOME ARE BETTER THAN OTHERS;
BUT THE BEST IS ACKNOWLEDGED TO BE . . . **CARABAÑA**

At least, the Paris and Madrid Academies of Medicine and the leading American Mineral Water Authorities so declare.

CARABAÑA is the ONLY Natural Antiseptic Aperient Water.

Write for Analysis, etc., to the Sole Importer:

GEO. J. WALLAU, = = = 2 and 4 Stone Street, New York.

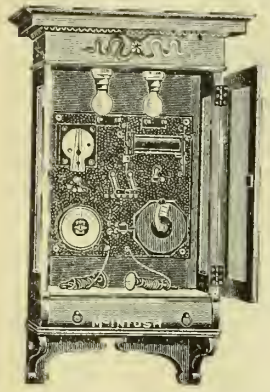
Chicago Policlinic and Hospital

Pioneer Post-Graduate School of the West

Regular FALL AND WINTER SESSION will be resumed SEPTEMBER 15th. Large Clinics, unexcelled Hospital facilities, and instruction by a corps of the leading specialists of Chicago ensure the practitioner rare opportunities for post-graduate work under the very best auspices. For announcement, schedule, and full information address

M. L. Harris, M. D., Sec'y, 174-176 E. Chicago Ave., CHICAGO, ILL.

ELECTRO-THERAPEUTICAL APPARATUS . . .



Galvanic and Faradic Wall Plate No. 6

THIS very desirable Switchboard, in handsome quarter-sawed Oak Cabinet, represents the highest standard of workmanship and material. It embodies all the latest improvements adaptable to this class of apparatus, and the simplicity of its arrangement affords perfect ease in operation, while it combines those accessories indispensable for the application of galvanic and faradic currents. The Milli-amperemeter, measuring the galvanic current, is graduated from 0 to 400 milliamperes, and accurately indicates the amount of current administered. The Faradic Coil is provided with two Vibrators; one giving course vibrations; the other, the Singing Rheotome, giving high rate of vibrations, especially adapted for producing local Anesthesia. The Automatic Rheotome measures any required number of interruptions per minute of either the galvanic or faradic current; the Graphite Rheostat controls both currents, and makes it possible to administer either gradually or in exact dosage. The Plate is also supplied with a pole-changer switch, binding posts, etc., and can be used on either the direct lighting current or a battery of cells. Write for our descriptive pamphlet and catalogue of electrodes.

We are the sole and exclusive owners of this design of switchboard. Insist upon having the genuine McIntosh workmanship. Send for description and prices. **BATTERIES, ELECTRODES, STATIC MACHINES.**

McIntosh Battery & Optical Co., 39 W. Randolph St., Chicago.

POLK'S MEDICAL REGISTER AND DIRECTORY

(ESTABLISHED 1886.)

The only complete Medical Directory.

Its information is procured from original and official sources The only Medical Directory having an Index to all physicians in the United States. The publishers possess the only complete list of college graduates in existence, many colleges having become extinct, and the records of others having been lost or destroyed. See that the name R. L. Polk & Co. is on the subscription order.

R. L. Polk & Co.,

Publishers,

Detroit, - - Michigan.

E. J. ANGLE, A.M., M.D.

Practice Limited to Dermatology, Syphilology, and Genito-Urinary DISEASES.

1215 O St., Lincoln, Neb.

DR. W. L. DAYTON. DR. J. P. WILLIAMS.

Doctors Dayton & Williams

PRACTICE LIMITED TO DISEASES OF

EYE, EAR, NOSE, AND THROAT.

OPHTHALMIC AND AURAL SURGEONS TO ST. ELIZABETH'S HOSPITAL

1205 O STREET, LINCOLN, NEB.

A. C. STOKES, M. S.

ANALYTICAL CHEMIST

Prof. Chemistry and Toxicology, Omaha Medical College.

Urine, Stomach Contents, and Blood, Etc., Examined. Differential Diagnosis of Cancer and Ulcer. Assaying.

1107a Pacific Street, ...OMAHA.

Medical Dental Pharmacal BOOKS

NEW AND STANDARD

CATALOGUE FREE UPON APPLICATION

LEA BROTHERS & CO., 706-710 SANSOM STREET PHILADELPHIA

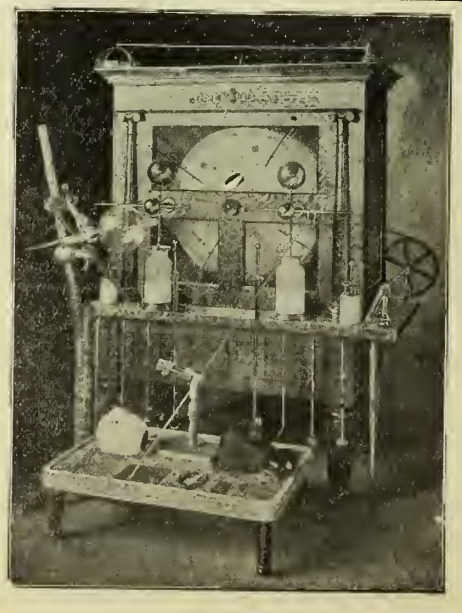
NEURILLA

SOOTHES, CALMS AND REGULATES THE NERVES.

INDISPENSABLE FOR NERVOUSNESS.

No bad effects follow its use.

DAD CHEMICAL CO., NEW YORK.



Look Before You Leap

INTO $300 TO $400 DEPTHS

Call at our factory and see how every part is made before buying We make everything as good as skilled workmen and money can produce, and still we can sell you a

16-Plate Perfection Static and X-RAY MACHINE With $75 Worth of Accessories

ALL FOR $175 CASH

We are satisfied with a small profit on each machine.

Piano finished quarter-sawed oak case.

Sparks every day, rain or shine.

Fully guaranteed.

Send for our Bargain Bulletin—Hundreds of Bargains.

Western Surgical Instrument House

647-653 W. 59th St., CHICAGO, ILL.

Physicians' Casualty... Association

A Mutual Association of Physicians and Surgeons to Provide Accident Insurance at Actual Cost...

C. C. ALLISON, M. D., President. D. A. FOOTE, M. D., Vice-President.

.... DIRECTORS ....

B. F. CRUMMER, M. D., Omaha, Neb. R. W. CONNELL, M. D., Omaha, Neb.
F. S. OWEN, M. D., " D. C. BRYANT, M. D., "
FREDERICK RUSTIN, M. D., " V. L. TREYNOR, M. D., Council Bluffs.
ROB'T GILMORE, M D., " C. M. SCHINDEL, M. D., South Omaha.
W. F. MILROY, M. D., "

OF, BY, AND FOR PHYSICIANS

NO PROFITS to anyone. Applications for Membership have been received from thirty-two States and Canada.

$25 WEEKLY COSTS ABOUT $3 QUARTERLY

For Particulars address E. E. ELLIOTT, Secretary,
38-39 U. S. National Bank Building, OMAHA, NEBRASKA.

SANMETTO FOR GENITO-URINARY DISEASES.

A scientific Blending of True Santal and Saw Palmetto in a Pleasant Aromatic Vehicle.

A Vitalizing Tonic to the Reproductive System.

SPECIALLY VALUABLE IN
PROSTATIC TROUBLES OF OLD MEN—IRRITABLE BLADDER—
CYSTITIS—URETHRITIS—PRE-SENILITY.

DOSE:—One Teaspoonful Four Times a Day. OD CHEM. CO.. NEW YORK.

H. S. Kennedy's Extract of Pinus Canadensis.

(Dark and White)

THE ONLY NON-IRRITATING MUCOUS ASTRINGENT.

It has proven to be of priceless value to the Physician in the treatment of
Gonorrhea, Gleet, Vaginitis, Catarrh, Ulcers etc.
A specific for night sweats

Rio Chemical Co. New York.

CHEMICAL

NEURILLA

SOOTHES AND REJUVENATES THE NERVES.

INDICATED IN ALL FORMS OF NERVOUSNESS.
NO BAD EFFECTS.

DAD CO.

NEW YORK — PARIS

EXERCISES A TONIC INFLUENCE ON THE PELVIC ORGANS

EXERCISES AN ALTERATIVE ACTION ON THE UTERINE TISSUES

MAILED TO PHYSICIANS ON RECEIPT OF $1.00

RELIEVES CONGESTIONS. ENCOURAGES PERISTALSIS
REMOVES SPASMODIC CONDITIONS.
REGULATES THE VASCULAR SUPPLY.

THE UTERINE TONIC ALTERATIVE

FOR ALL FUNCTIONAL UTERINE AND OVARIAN DISORDERS

SAMPLES AND LITERATURE ON APPLICATION MELLIER DRUG COMPANY, ST. LOUIS.

The Winkley Artificial Limb Co.

JEPSON BROS., (Sole Owners) Incorporated under the Laws of the State of Minnesota

Largest Manufactory of Artificial Legs in the World

Manufacturers of the Latest Improved Patent Adjustable Double Slip Socket

Artificial Leg

With SPONGE RUBBER Mexican Felt or English Willow FOOT

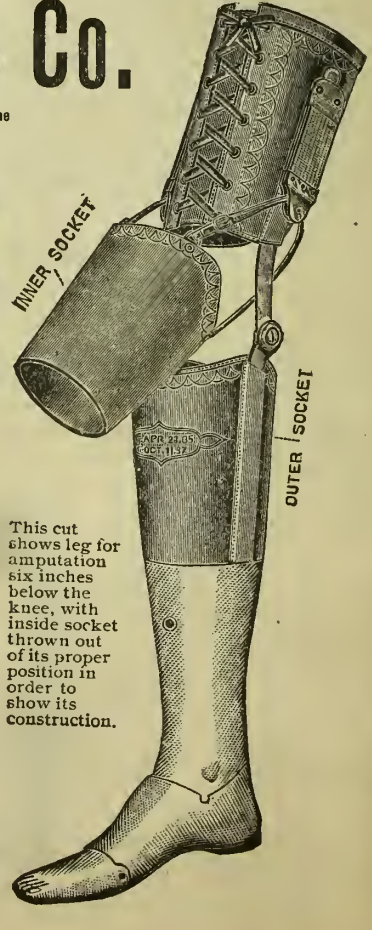
Both legs amputated five inches below the knee.

Warranted not to Chafe the Stump

PERFECT FIT GUARANTEED

From Casts and Measurements WITHOUT LEAVING HOME.....

Thousands of our Slip Socket Legs now being worn. U. S. Government Manufacturers.



This cut shows leg for amputation six inches below the knee, with inside socket thrown out of its proper position in order to show its construction.

☞ **This is the Leg that is being recommended and ordered by so many of the leading physicians and surgeons.**

Send for our Large New Illustrated Catalogue

MINNEAPOLIS, MINN., U. S. A.

WESTERN

MEDICAL REVIEW.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY PUBLISHED BY WESTERN MEDICAL REVIEW CO.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

H. WINNETT ORR, M. D., EDITOR. Entered as second-class mail matter at Lincoln, Nebraska, post-office

VOL. IX, No. 2. LINCOLN, NEBRASKA, FEBRUARY 15, 1904. $2.00 PER ANNUM.

SHALL AN EARLY PARACENTESIS BE DONE IN ACUTE INFLAMMATION OF THE MIDDLE EAR?

Not many years ago otologists seemed to be practically united in the opinion that a paracentesis should be made whenever pain, diminution of hearing and bulging of the drum-head made it probable that pus was contained in the middle ear. This opinion is still maintained by the majority, following, in this respect, the teachings of Schwartze, who in the sixties revived the operation after it had fallen into discredit on account of having been employed for all sorts of unsuitable purposes. Of late, however, under the lead of Zaufal, an equally good authority, a tendency has been manifest to postpone the paracentesis as long as possible. Zaufal holds that in a large proportion of cases in which paracentesis is commonly made, the perforation of the drum-head, whether artificial or natural, can be averted by the use of antiphlogistic measures, and that paracentesis should be employed only as a last resort. He bases this conclusion partly on the bacteriological findings, which indicate that the great majority of uncomplicated acute inflammations of the middle ear are due to the diplococcus of Fraenkel and that this germ, as a rule, produces a comparatively harmless otitis; but that after paracentesis secondary infections of the strepto- and staphylococci occur which are much more dangerous. The fear that while attempting the abortion of acute otitis, dangerous results may occur from the pent-up pus, the Zaufal school regards as chimerical, holding that the thin drum-head will surely rupture before serious damage to the deeper structures can occur. In protesting against this as a dangerous doctrine, Heine, assistant at Lucae's clinic at Berlin (Deutsche Med. Woch. 48, 1903), cites a striking case of the harm that can result from following it, in cases where the drum-head happens to be unusually thick. The patient was a man who had suffered from severe earache for three weeks without a perforation of the drum-head, spontaneous or otherwise, having occurred. He came to the hospital with marked signs of meningitis; an opening was made through the thickened drum-head, allowing exit for a small amount of pus, and a radical mastoid operation was performed, but the meningitis progressed to a fatal issue and the autopsy showed that the suppuration, instead of breaking through the drum-head, had passed through the labyrinth to the brain. In this case an early paracentesis would, with little doubt, have saved the patient's life. The writer cannot help agreeing with Heine that, on the whole, the influence of Zaufal's doctrine is pernicious, especially for the general practitioner who, even under the common teaching to evacuate pus wherever it can be found, is altogether too loath to do a paracentesis. No doubt there is a modicum of truth in Zaufal's dicta. Many acute cases can be aborted and in the great majority of the others a spontaneous perforation will occur before dangerous results are produced, but the magical effects of a well-timed paracentesis have been demonstrated in so many thousand cases, that, aside from its life- and hearing-saving effects, the writer is convinced that for the relief of pain alone it deserves a wider rather than a more limited field, in general practice.

H. GIFFORD.

IS MEDICINAL THERAPEUTICS DECLINING IN FAVOR WITH THE MEDICAL PROFESSION IN PROPORTION TO THE INCREASE IN POPULARITY OF PHYSIOLOGICAL AND SURGICAL MEASURES? IF SO, WHY?

Much of the laboratory effort of the past few years has been directed toward making of medicinal therapeutics an exact science. Animal experimentation with drugs has given us light on the use of drugs at points which have heretofore been absolutely dark. Medicinal therapeutics as a part of medical practice has made a distinct advance. Drugs may be used with more accuracy and in certain quarters are used with precision to the securing of definite results. The medical profession at large, however, have shown a disposition to be skeptical with regard to the use of internal medicaments; the laity, led by the various exponents of the non-medicinal treatment of disease, have far outrun the medical profession itself. There is a skepticism abroad in the land with regard to the administration of drugs which has threatened not only that branch of medical practice but has seriously affected all the work of the profession. Medical men everywhere are under the ban of suspicion. Their medicines are held in so much distrust that not only

heir remedies but their powers of diagnosis and heir judgment in regard to the rules of health and isease are everywhere held up to scorn and criticism y the least learned in medical things of the laity.

Medical men as organizations cannot secure public ecognition for their patients because they are supposed to be prompted by selfish motives. Efforts to ontrol epidemics, to promote hygiene or to secure mmunity in any way against the prevalence of communicable diseases or equally injurious medical quackry, are met with the same opposition, all because of his widespread distrust of physicians.

Of course all these things apply only to the large nass of the public. Anyone even half acquainted with nedicine as it is now, or with the history of medicine, is soon convinced of the equity of all that the doctor now demands from his patient and the public. The question arises, for how much of this condition is the physician himself to blame? Have his methods been faulty or has his treatment of his patients been such as to breed distrust? The true remedy for the condition of affairs now existing may be one thing or another, but surely we should deal more frankly with our patients. We should re-establish in both physicians and patients the confidence in those methods of drug treatment which we know to be an integral part of our medical practice. Patients should have explained to them the value, not only of certain drugs in the treatment of their conditions, but the infinite harm that can be done by taking these drugs indiscriminately, in the form of patent medicines. Many of our drugs are unquestionably of the greatest value in preventing disease, in correcting disease processes, in stimulating the natural forces, and, in critical moments, of saving life. These facts should be kept in mind. We should not fall short in our knowledge of the application of drugs; we should not lag behind in the progress that is being made in knowledge as to their more definite effects and the methods of their application.

H. WINNETT ORR.

I would answer, yes. No doubt some are as active and industrious as ever in pushing and developing medicinal therapeutics, but I am convinced it is not as universally believed in as it formerly was. As to the cause of it, there may be several reasons. First, the great furore for surgery because of its wonderful progress and success during the past quarter of a century; second, the deference paid to the teaching abroad, where more thought is given to pathology, diagnosis and surgery than to medicinal therapeutics. I may say, too, that I believe it to be a mistake, and am glad to see what I think is a tendency for medicinal therapeutics to receive its right and proper place in the relief of human ailments. W. O. HENRY, Omaha.

We are gradually approaching a position of partial nihilism in therapeutics and I look for the time, probably not in my day, when our remedial agents will be classed under two heads—reconstructive agents and specific agents.

A vast amount of the drugs administered to our patients are in my opinion positively injurious and possessed of no therapeutic value whatever. That our patients of twenty years ago survived the horrible mixtures we poured into their stomachs, I can not understand. I entered practice when much greater confidence was held by the profession in the curative properties of drugs than is entertained at the present day, and I guess I have used my proportion of them; but now I will do a good day's business and not write a single prescription, and am far more successful in promoting a speedy cure than formerly.

RICHARD C. MOORE, Omaha.

Yes; because a better knowledge of the normal functionation of the body supplies the physician with hygienic and dietetic resources for restoring physiologic conditions which were previously thought possible only by drug treatment. A more potent reason, however, is because of our better acquaintance with pathologic facts, the causes producing them, and the character and vital powers of the disease germ. As physiology, pathology, and psychology are individually known and their inter-relation better understood, we use fewer drugs, relying more on the power of augmented vital forces for destroying the germ, or, failing in this, we excise the infected tissues. This is my conception of the high ideal of the great army of noble medical men who have been and are responsible for every really forward step in medicine.

Medicinal therapeutics per se is not securing the attention that subject deserves, because these instructors in our medical colleges are busy practitioners who do not compound their own drugs, are not familiar with their physical properties, and they, in common with too many of us, allow the pharmaceutical houses to initiate compounds and dictate their application.

The amount of drugs used by the people is proportionally greater and less intelligently administered, as the art of compounding pleasant-tasting and nice-appearing preparations is relegated by the medical profession to the pharmaceutical manufacturers.

Progress in pharmacy is most helpful to the medical profession, but doctors—like other human beings—are sometimes prone to follow fads. The wave of reaction now abroad against prescription writing is an assertion by the medical profession of its individuality as the rightful dictator of all therapeutic measures.

J. M. AIKIN, Omaha.

It is my opinion that medicinal therapeutics is declining in favor with the profession as compared with physiological and surgical measures, and this is more especially true with reference to the latter.

There are probably a number of reasons for this, prominent among which is the wonderful results achieved by modern aseptic surgery, enabling the surgeon to invade every region and organ of the body, even the heart itself being attacked with comparative impunity.

Under the reign of the more perfect asepticism growing out of the original teachings of Lister, Pasteur, Tate and others, and the almost perfect technique of

modern surgery, it has much more nearly approached an exact science than has medicinal therapeutics; and then, again, there is the love of the spectacular which surgery affords.

Of no mean importance as a causative factor in the more rapid advance in favor of the science and art of surgery, is the more remunerative fee which it assures. The life of the patient may be as surely saved by the internist as by the surgeon with his brilliant abdominal operation, but no such fee will be tolerated.

The work of the modern pharmaceutical house, with its almost myriad combinations and preparations, has a tendence to discourage the close and scientific investigation into the action of drugs that used to obtain, before the average physician, as is his custom to-day, allowed the pharmacist to do his thinking for him. We do not know our materia medica and therapeutical action of its principal and staple members as we should do. We are too prone to read the manufacturers' label on the bottle, rather than to thoroughly acquaint ourselves with the chemistry and therapeutical action of a few of the members of each class of the materia medica; hence fail to properly interpret the indications and select the proper remedy, and are disappointed in the results, and lose faith in the drug. We should thoroughly acquaint ourselves with a few well-tried drugs and learn to use them intelligently. Better to know a few well, than to have an indifferent knowledge of many. J. W. BULLARD, Pawnee City.

We would answer the question in the affirmative most certainly, and for the following reasons: To dose the sick with noxious concoctions or drugs is as old as the history of medicine itself; in fact was the original foundation for the science. As years passed by and the knowledge of drugs and disease became more and more refined and accurate, the treatment of course improved, became more rational, until we enjoy at the present time our splendid materia medica and therapeutics, together with accuracy in diagnosis and manner of prescribing, second to none in the past. We would not detract one iota from the legitimate field of medicinal therapeutics, but because of the increased knowledge of other methods, the field has become more and more restricted and better defined.

The first great agency to make an inroad on the medicinal field was surgical procedure; true, it was rude and primitive in those early days, and many examples substantiating this fact could be cited if necessary; but as time progressed this then new therapeutic measure became more and more refined, until at the present time we have the art of surgery more highly developed than ever before; and in proportion to this development we find it has taken from medicine a large portion of what was considered her exclusive territory, but most justly. What has been said of surgery and its encroachment on the once broad field of medicinal therapeutics, can be truly reiterated of the more recent physiological methods now in vogue. For the treatment of disease those of us especially interested in neurological work cannot help but recognize this important fact. The so-called former legitimate field of medicine thus is being gradually reduced as the physiological and surgical indications are becoming more and more clearly defined; each is finding its proper level, the two latter mentioned to a great extent at the expense of the former. The most skilled physician is he who knows best just how much of each to use and when and how to combine them in proper proportions in a given case. We should be very careful indeed not to use one of these methods to the exclusion of the other, and if any suggestions are allowed, we would say the last acquisition should be especially most carefully studied, not only because it is the more recent of the acquisitions to our armamentarium, but because it has a legitimate place and is a most potent factor. If the regular physicians would study and prescribe massage, Swedish movements, etc., more for their cases, the excuse for the existence of osteopathy would never have existed. F. E. COULTER, Omaha.

If one is required to give a categorical answer to your query, one must say "Yes," and the explanation offered will vary with one's individual experience. There is no question that there is a widespread pessimism among physicians in regard to drug therapeutics. If we analyze this pessimism we find that it is due, in a large measure, to the spirit prevalent among the authors of text-books who are ultra-conservative in their description of treatment, but if we were able to follow these authors into their clinical work we would find that they use drugs much more frequently and with better results than their official statements in the books would indicate.

A further cause of this spirit of pessimism is carelessness in diagnosis. Scarcely a disease presents itself in which the interdependence of organs is not broken, and it requires wide clinical experience to know which point in the train of symptoms is assailable by drugs and with what drug we can get the quickest and best results.

Another thing which obscures our view is a lack of rational knowledge of the course of diseases and an accurate knowledge of what can be done to modify this course. The profession has, in a measure, been overwhelmed with the laity's idea that there must be a drug-cure for every disease; and the profession, not finding at once this sure cure for each and every case, has swung to the opposite extreme, and the vast majority are inclined to believe that there is no such thing as cure. In a large number of diseases such is undoubtedly the case; but scarcely a condition presents itself in which drug therapeutics are not a benefit, this benefit ranging from the slightest amelioration to complete cure.

The investigations of such men as Schmiedeberg, Bunge, and Cushny, in laboratory experimentation with drugs, while it has served to put our knowledge of some facts of drugs on a better basis, has, at the same time, had a tendency to destroy our belief in the value of clinical experiments; but at present there is a tremendous increase in the amount of accurate clinical knowledge of the effect of drugs. Continuous experimentation at the bedside is being carried on in many

hospitals, so that our knowledge is rapidly increasing. Every day drug therapeutics stands on a firmer basis, and it is a matter of but a short time till the knowledge of the practice of medicinal therapeutics will be as broad as the present knowledge of surgical therapeutics and will be just as much appreciated.

LE ROY CRUMMER, Omaha.

Yes; and there probably never has been a time when drugs are given with a better understanding of their true value than now. Indeed, their limitations are more fully recognized. The time was when medical men had a blind, and almost implicit, faith in the action of their remedies. Now, with the physician's enlarging horizon, ever possessing an infinitely greater knowledge of the specific, etiological factors in the production of disease, as well as a better understanding of its course and its modifications, he can and does exercise greater wisdom and prudence in the administration and curtailment of his remedies. With these conditions, drugging constantly declines in importance.

True, with the rapid advancement which have taken place, there has been something of chaos in the pharmaceutic world, with its numberless new drugs, combinations of drugs, and polypharmic preparations; there has come therapeutic dry-rot, or some deteriorating agency, which sometimes finds expression in therapeutic nihilism. I sometimes think that if half the time were spent in reading text-books on materia medica that is spent in perusing circulars on new and untried preparations, criticism would be less than it now is.

The larger proportion of medical men, young or old, taking post-graduate work, spend their time about surgical clinics, and too little in the pathological laboratory. The study of materia medica and clinical therapeutics is considered too elementary for his advanced position. I think that the average physician continues to foster these delusions. The old-time bedside association with the sick, along with the preceptor, and the familiarity with medicines as then acquired, may be contrasted with the present time, which suffers a lack of these opportunities. The college and hospital have essayed to fill the place; but with too large a number of students for practical, every-day bedside study and observation, in our hospital wards, an injustice is being done our students; and the effects are being shown among our practitioners, which may, in a measure, be responsible for the present inquiry.

But to return to the question. It in a measure answers itself. All recognize the constantly increasing dependence on physiologic therapeutics; and just as physiologic betterment lessens the necessity for drugs, so do surgical short-cuts to health. Therefore, with these increasing factors (surgery and physiologic therapeutics) in the elimination of disease and suffering, the relative importance of drugs and the range of their usefulness in the treatment of disease will decrease.

J. P. LORD, Omaha.

If the quantity of drugs administered is a criterion of popularity with the medical profession, medicinal therapeutics is certainly declining in favor. But between a blind confidence in drugs prescribed indiscriminately and without a due regard to the conditions present or to the true physiological action of the medicaments, and a careful consideration of the diagnosis, the pathological lesions found, and an enlightened administration of the one drug definitely indicated, is a far cry. The man who prescribes the one drug intelligently is as much in favor of medicine as he who shuts his eyes and fires a volley under the conviction that some stray pellet may bring down the game.

Every progressive man, as his experience ripens, has less faith in the power of drugs to accomplish the impossible and prescribes fewer remedies but in a more enlightened spirit. He does not expect a medicine given internally to remove a tumor or stop a vaginal discharge, but, realizing just what it reasonably may be expected to do, he gets better results. Because he now goes about the matter logically is no indication that medicinal therapeutics is declining in his favor, even though at the beginning he may have had an almost superstitious faith in the value of the nauseous compounds of which his patients were compelled to partake. On the other hand many conditions for which medicines were formerly prescribed without benefit have been found curable by surgical measures. Serumtherapy has also taken a prominent place in some conditions. The profession is getting a better perspective and internal medication is being made use of more nearly within its true limitations.

If I were to attempt to answer the question "What one element has had most effect in retarding advance in knowledge of the action of drugs?" I should unhesitatingly say it is the ready-made mixtures of the manufacturing chemists. Should we heed the siren voices of the many agents who infest our offices we would conclude that all needed to make the most eminently successful practitioner of medicine is to read carefully the labels on the bottles containing the many wonderful preparations which the X, Y and Z companies have gone to fabulous expense to invent for our use.

No; confidence in medicinal therapeutics is not declining! The true student of medicine has a more exact knowledge of what can be accomplished by drugs than he had ten years ago. His faith is less blind; he prescribes fewer remedies; but he secures better results and can better estimate what his results will be than when he practiced the "shot-gun" method.

B. B. DAVIS, Omaha.

I am growing to believe that the decline of medical therapeutics is an actual condition,—a sad one, truly, but due to two fundamental causes:

1. The lack of a thorough knowledge of medical measures. The medical student, when he graduates, has forgotten his materia medica and therapeutics in his recent interest in surgical clinics, and, instead of being able to call to his command many potent drugs, understanding their action, and knowing their limitations and possibilities, goes out into practice armed with an empiric and imperfect knowledge of some ten

or fifteen preparations and a few dispensary formulæ. He follows a line of small resistance and soon comes to rely so absolutely on his meager equipment that he believes that what these few drugs will not accomplish is outside of the realm of therapeutics.

2. Surgery now offers an easy solution of such difficulties. Calling in a specialist is the next step; and if the specialist be a surgeon, operative procedure is inevitable. Now, should operative measures fail (and sometimes, you know, they do) the family can have the knowledge that everything within reach has been done; so everyone is happy, except, maybe, the patient himself. I am not up in arms against the surgeon. He is the right man when he is in the right place, but he is altogether too confident of his powers and hence too aggressive, robbing us of much we hold dear, until we are inclined to cry: "O Appendicitis, what sins are done in thy name."

This aggressive policy is alarming in its possibilities. Think of the number of appendices that are annually "given up" and compare it with the puny few that come into the world, and then figure how long before that ornamental section of our own individual anatomies will be called upon for sacrifice to satisfy the ardor of the "man behind the knife." It's a different matter when we think of our own vitals being laid open for resection; so, to prevent such ravage, I propose that medical societies arrange a schedule for an open and closed season for the appendix and thus give opportunity for recuperation from the attacks of the surgeon on this sportive little organ. Such a condition would add a zest and flavor to the hunt which it cannot now possess, and in my mind's eye I can see the eagerness with which certain of my friends would watch for the opening day when, with impunity and varying skill, they could track the little rascal to his lair and slay him in the most approved manner.

The cynicism of many members of our profession regarding the efficacy of therapeutic measures is due largely to the fact that they do not know enough about the subject to talk sensibly upon it. Our grandmothers who collected "yarbs" *and knew how to use them* were better physicians than many a man who holds a diploma. J. M. MAYHEW, Lincoln.

I do not think so. Surgical measures, while deservedly popular with a discerning public, were never more conservative in their application and their limitations more clearly defined, and their applications more conscientiously made than at the present time. This fact is not more quickly recognized by the conscientious surgeon than by the physician whose practice is devoted chiefly to medicinal therapeutics. Country practitioners and men in the medical centers, who treat their patients for the most part medicinally, are not fools. Their powers of observation and their processes of drawing conclusions are in active exercise. These keep in touch with the surgical work done by the masters in the art and the trend of conservatism or dogmatism is quickly and accurately noted by them. The pendulum that has of late years been swinging backward towards a well-defined and most reasonable conservatism in surgical thought and surgical practice was first noticed by prominent therapeutists. If by physiological measures we understand hydrotherapy, electrotherapy, massage, etc., the same truth holds good, namely, that the limitations of these measures are more clearly demonstrated and their application to diseased conditions more clearly defined than ever before. And hence it is true the physician is studying the same limitations and application of his medicinal armamentarium. As one proof of this, in two recent meetings of county societies, much more time was spent in discussing the application of medicinal remedies than was taken up in the discussion of surgical measures, although the latter subject was the more prominent on the program.

To my mind the greater drawback to therapeutic accuracy and the greatest spur to medicinal therapeutic nihilism is not the advancement in physiological therapy nor the achievements of surgery, but is to be found in the ready-made, hand-me-down combinations that are thrust upon the physicians from all sources and warranted to fit any case that is so wide and so tall. While this is resented by a great many physicians, the effect is seen upon the entire profession. Under the stress of certain circumstances even the opposer will use them.

However, it is my opinion, based upon reading and observation, that there is not a lack of interest in the use of medicinal remedies. The alkaloids are coming more and more into use. We are thus better able to study the physiological action of individual drugs. Valuable as are these methods represented by the term "physiological measures," they can only at the best be adjuncts in the treatment of disease. Drugs have always played the most important part in the treatment of pathological conditions, and the probability is they will not be supplanted. There are many drugs, old and tried, that may be depended upon to produce certain results. So there are new ones to be discovered by the scientific men who are in this field of research.

A. B. ANDERSON, Pawnee City.

I believe that medicinal therapeutics has declined in favor with the medical profession. Whether it has declined in proportion to the increase in other—at present—more popular measures, or whether it has declined because of such increase, or whether the increase of the more popular measures has occurred because of the decline in favor of medicinal therapeutics, might be difficult to decide.

At first thought the very largely increasing number of drug remedies presented to the doctor by the manufacturing chemists and pharmacists would seem to be an argument against any declination in their popularity or use. But may not this largely increasing pharmacopeia be but an effort to supply the constant demand for some newer, better weapon against disease than the doctor at present has, and thus be but an index of his dissatisfaction with his present drug equipment?

The use of drugs as a therapeutic agent has, apparently, always rested upon a basis more empirical than

scientific. The reasons for this are evident. The varied—sometimes seemingly opposite—actions of the same drug according to dosage; the difficulties that attend the discovery of the exact mode of action by which a drug produces a certain action in a living organism; the different actions of the same drug, according to the varying physiologic or pathologic conditions of the subject; the difficulty of exactly estimating from the effect of a drug on one person, representing a certain, but unknown, vital equation,—just what the effect of that drug or dose will be upon another, different, but equally unknown, vital equation; these, and many other conditions, seem to present great barriers to anything like a scientific exhibition of drugs as remedial agents.

This seeming uncertainty of drug action has, I believe, led their employment into a certain measure of disrepute, which is too often enhanced and emphasized by a lamentable lack of that systematic investigation which should always precede a diagnosis and a selection of treatment; a lack, to which, alas, we are all of us too prone.

Such a failure to accurately appreciate the conditions to be met can not help but lead to inaccuracies in drug selection and timidity in pushing them till the desired effect is produced.

The spectacular brilliancy of the modern surgeon, with his retinue of white-gowned assistants and trained nurses, and his no less wonderful results, have for the time being eclipsed his more humble brother with his pills and powders and tinctures. There is so little to attract attention to the results of the therapeutist. That such disparity exists is to be regretted. Not that the surgeon deserves less, but the skilled user of drugs deserves more attention.

These conditions seem to have engendered in the minds of many a pessimistic distrust of the use of drugs. That this shall continue unabated, I very much doubt. That it will result in a better and more scientific basis for their use, with a clearer knowledge of their action and a greater precision in their exhibition, is greatly to be hoped.

F. W. PLEHN, Burchard.

The first part of this question, I think, can be answered in the affirmative; however, with a very important qualification. We must discriminate between pharmacology and the administration of drugs. Pharmacology is a new science, while drug-giving is as old as the hills. The latter certainly has declined in popularity; the former has gained, at least actually, if not relatively.

During the past twenty years the science of therapeutics has broadened wonderfully, so that to-day many successful methods of treatment, entirely outside the domain of pharmacology, are at the disposal of the scientific physician. The multiplication of extra-medicinal agencies tends to throw into the background the uncertain, and usually unscientific, means which constituted the sole resource of the profession thirty years ago. That there has been an actual retrogression in the science of pharmacology, the writer does not for a moment admit. Indeed the reverse is true, and medicinal therapeutics is really making wonderful strides forward. It is not making such wonderful progress, however, especially from the standpoint of popularity, as the more recent additions to the domain of therapeutics. Among these can be named electrotherapy, vibratotherapy, radiotherapy, organotherapy, thermotherapy, hydrotherapy, psychotherapy, dietotherapy, and massage. To be sure the most of the recent additions are only in their experimental stage, while some are mere passing fads, a reflection of the commercial spirit of the age. Time, with research and experience, will fan out the chaff, and preserve the kernels of truth which all of them possess. There is indeed danger that we may lay too much stress upon the commercial danger, and, in our eagerness to suppress it, may lose the grain of truth. We may even learn something from the methods of the osteopath and the Christian Scientist.

The medical profession, perhaps more than any other, is influenced by the voice of authority; and authority frequently revises its opinion. We are naturally extremists. To-day the pendulum swings one way, to-morrow the other. Our grandfathers bled freely in pneumonia, while our fathers warned us that bleeding in pneumonia was sure death; and the pendulum is still swinging. Not many years ago opium was the sheet anchor in peritonitis. To-day the appendicitis specialist prescribes laxatives and interdicts opium because it masks the symptoms. Will we not find the solid ground some day?

Pharmacology is to-day proving itself. It is on a scientific foundation and must grow. The underbrush of prejudice based upon false premises, and the unscientific application of "old and tried" remedies, however, must be discarded before the science will thrive. Freed of these barnacles of a past generation, and based upon the physiological action of drugs, pharmacology will yet prove its right to survive and prosper.

I think we may conclude, therefore, that the lessened popularity of medicinal therapeutics is more apparent than real, and that it is due to the multiplication of other resources for combatting disease. We love not the old less, but the new more.

S. E. COOK, Lincoln.

It is not only declining, but has reached the depth of its degradation; and a reaction toward something better is in sight, as proven by the appearance of this very inquiry. It has been my experience, corroborated no doubt by my co-students of more than thirty years ago, that then, and since, instruction in therapeutics,—that is, the remedy and its use,—has ever lacked in thoroughness in most schools. Even such a simple and harmless remedy as castor oil is little known. Its proper administration, the dose, the time, the diseases in which it is indicated, are factors, the knowledge or ignorance of which means a medical case of many abdominal lesions, or a resort to the specialist and his knife. Ipecac has fallen into disuse in favor of hypodermatic use of apomorphia, as though ipecac had but one use, that is, to cause emesis. Morphine is used in preference, when the merest tyro in therapeutics should

know that opium, its source, has many uses, and valuable ones, of which morphine is unaware. This lack of specific knowledge and experience, which constant handling can only give, is to blame for the use of all manner of proprietary remedies, many of which sacrifice to taste, efficacy; and removed, in consequence, only by a presumed respectability from the legion of horrible patent compounds. As an example take the very popular cinchona tonics, elixirs, essences, etc. One-half ounce of the fluid extract of red cinchona added to enough of the simple elixir (orange) of the National Formulary to make a pint, will duplicate in taste and strength the most popular of all of them. Imagine the efficacy of two to three drops of the fluid extract of cinchona for a dose! As a tonic! As an antiperiodic!

But you say young men are so much better educated to-day. Are you sure it is better education? Do you not mean more instead of better? The test-tube, the microscope and the biological laboratory certainly open the door to fields many have never plowed; but I also notice that these things and places are not inhabited by living human beings whose pleadings for relief or cure run the gamut of all diseases human flesh is heir to. And the things and places do not reveal in the least the mystery of castor-oil-giving, the efficacy of ipecac, the proper dose of cinchona, or the rule when morphine or opium should be preferred, or chloral be substituted for them, or how aconite may be added to the one and not to the other, and many other commonplace facts, which bedside study reveals; or are expounded by him who has been made a master of therapeutics at the couch of pain and not at the laboratory table. I do not decry the valuable adjuncts of medicine —the test-tube, the microscope and the biological laboratory; they surely contribute in making scientists of physicians, but they do not make physicians out of scientists. We have many physicians now who are perfectly familiar with bacteriology and physiological chemistry, who cannot diagnose a case of intestinal colic from appendicitis at the bedside; or can discover a case of typhoid fever unless someone presented them with some specimens of the bacillus typhosus; and few could make a takable specimen of the classic castor oil emulsion, which has done so much in the hands of our fathers to rob typhoid fever of its terrors.

Lack of practical training at the bedside and a familiarity with crude drugs, and a knowledge of their compounding into fairly takable doses (most so-called pleasant doses are no doses), has created the present-day gullible practitioner, who takes his remedies by faith from the manufacturers and who, when he beholds the utter inefficacy of his doses, becomes a medical nihilist and resorts to the other extreme, the hocus pocus and the knife.

A. S. v. MANSFELDE, Ashland.

That there has been a decadence in medicinal therapeutics during the past decade or two is patent to all close observers. A colleague expressed this aptly the other day when he said, "Therapeutics is a lost art." What therapeutists have we to-day who can fill the places of a Bartholow, a Da Costa or a Pepper? The increased knowledge of surgical and physicological measures may to a certain extent be responsible for this, but I believe there are other causes more intimately connected with this condition. One extreme follows another, and it is but natural that hypermedication and overconfidence in the use of drugs should be followed by a period of almost therapeutic nihilism.

Blood-letting was abused by our predecessors, but who will deny its efficacy in certain vascular, cardiac and pulmonary diseases? A physician of our city related a case to me of opium poisoning which was undoubtedly saved by bleeding. The majority of men in active practice to-day have yet to bleed a patient.

Current medical thought emphasizes too strongly the self-limitation of many diseases,—that medicine is useless and superfluous, that nature alone produces a cure. This is true; but a guiding and discriminating hand is necessary to prevent complications or subdue them when they arise.

In the curriculum of our foremost institutions the fascinating studies of bacteriology and pathology have received more attention than pharmacy and therapeutics. Large and well equipped laboratories for the study of pharmaco-dynamics are needed, where the student can become familiar with every phase of drug action.

Too many of our physicians do not prescribe from the pharmacopeia, but depend upon proprietary medicines, the samples and literature of which are constantly on our office tables. Following the law of repeated suggestion, the physician who is constantly reminded that a given preparation is of benefit in certain conditions, will naturally prescribe accordingly when called to treat disease. Proprietary medicines are of three classes: those which give no formulary, those in which it is given but not the amount of the drugs, and those in which both are given. In what way do preparations of the first class differ from a patent medicine, such as Peruna, Warner's Safe Cure or Lydia Pinkham's Compound? Yet tons of this class of drugs are prescribed annually by the profession, simply because the manufacturer keeps on saying it is a good thing and spends large sums of money in sampling, advertising and securing recommendations from prominent members of the profession. Thialion is a remedy of this class, and in the January, 1899, issue of Gaillard's Medical Journal is to be found the following recommendation of its virtues, given to a class of students at the Cincinnati Hospital by a recent ex-president of the American Medical Association: "But I do know that with it (thialion) I have been able to lessen the acidity and lower the specific gravity of the urine more rapidly than by any other means. * * * The bowels are put in a condition of normal activity." I do not know how much this gentleman was paid for the laudation of this wonderful proprietary, or if paid at all; but if such obtains in the high places is it any wonder that others go astray?

The injury done the physician himself by prescribing proprietaries and stock formulæ is incalculable;

individuality and analysis are abrogated and the application of drugs become purely mechanical. The remedy lies in simple prescribing, the use of single drugs whose physiological action is perfectly understood. Lastly, one's skill as a therapeutist is in inverse ratio to the number of drugs prescribed.

E. J. ANGLE, Lincoln.

Medical therapeutics is losing ground as scientific medicine progresses. I will briefly produce two lines of argument to that effect.

1. Let us look at a few groups of cases which have passed from the hands of the internist to the hands of the surgeon.

a. The first group includes the new growths. These were formerly treated by drugs. At present all the new growths that are tenable to treatment are treated surgically. The exceptions to this general statement are a few cases of epithelioma, and the beneficial results in the medical treatment of these cases are decidedly questionable. The advertising cancer quack is a remaining example of the old promulgators of this form of treatment.

b. Another group which has practically left the internist are the diseases of the liver and bile tracts. Formerly there were lists of drugs called cholagogues, direct and indirect, and anticholagogues and drugs which were supposed to have some influence on the secretion of urea by the liver. These ideas have been set aside. There is not a single disease of the liver which is known absolutely to receive any benefit from the treatment of the internist except where the treatment is simply physiological, as in the matter of diet and rest. Some liver cases, such as abscess and certain forms of new growths, are being treated by the surgeon. The entire group of the diseases of the bile tract has passed to the surgeon.

c. All tuberculous lesions of the appendages, abdomen and pelvis, a rather large and important group, have passed to the surgeon.

d. Practically the entire field of gynecology has also gone to the surgeon.

There are but four groups of cases. They are only examples, not all. How many cases or groups of cases have passed from the surgeon to the internist? I know of none.

2. Let us now consider the second line of argument, namely, that the number of cases which are not surgical and which are recognized as receiving no benefit from medical treatment other than physiological is increasing.

a. First let us review the group of nervous diseases. How were these diseases treated formerly? The number of drugs given covered a good share of the pharmaceutical curriculum. All the depressants, from the coal-tar products to opium, and the stimulants, from ammonia to strychnia, have had their day, as well as a class of drugs supposed to have some influence on the metabolism of nerve-tissue, such as arsenic, sulphur, phosphorus, etc. What do scientific men do for these cases today? Let us look at a short list of them. 1, infantile paralysis; 2, paretic dementia; 3, myelitis; 4, locomotor ataxia; 5, amyotrophic lateral sclerosis; 6, ataxic paraplegia; 7, cerebro-spinal sclerosis; 8, syringo-myelia; 9, anterior polyomyelitis; 10, Landry's paralysis; 11, migraine; 12, hysteria; 13, epilepsy. I ask again, what are we doing for this group of cases? Not one of them can be attacked directly, with the exception of one or two whose etiology, in some instances, probably bears some relation to syphilis.

b. Space will permit me to bring up only one more group of cases, namely, the acute infectious diseases. In the past the same empirical multiform drug treatment marked the care of these diseases as well as those mentioned above. Today, with the exception of a few instances, in which serumtherapy is employed, there is not a single drug which in the judgment of scientific men has any influence whatever on the disease itself. Hydrotherapy and supportive treatment includes practically everything. Let us take one example—pneumonia. Every year or two brings a method of treatment which is recommended as at least an aid in the cure of this infection. A year ago carbonate of creosote was having its period of praise. What do you do after making a diagnosis of lobar pneumonia? You advise as regards his or her physiological necessities and perhaps order one or more varieties of capsule or tablet. Then you will return to that patient at least once a day with the hope that the blood through the instrumentality of its corpuscles and fibrin has walled off the pneumonic process, or that an antitoxin has been produced which will annul the effects of the toxin absorbed, or both. If you can do more than this you can command the modern scientific medical world to kneel at your feet, and they, with the feeling of infinite praise, will readily obey.

H. J. LEHNHOFF, Lincoln.

Is it true that there is a prevailing sentiment in the medical profession that would lead to an affirmative answer? In the opinion of the writer there is, but he does not interpret this sentiment as a tendency to render nugatory the physiological uses of drugs. He rather views the situation, the professional attitude, as the reflection of a broader therapeutic horizon which extends its range to all agencies promising to contribute their part in restoring the sick to health. The day of exclusive drug treatment, however, seems to be declining, and the auxiliary methods of the treatment of disease contemplated in the term "physiological" marks an advance in medical thought which appeals to every enlightened and progressive medical man. Our knowledge of medicinal therapeutics comes to us as an accidental revelation, or as the result of experimentation.

All scientific medication is based upon the known action of a given drug of a certain dosage, together with a thorough understanding of physiological and disease processes. Without an acquaintance with these fundamental sciences, any medication must of necessity be empirical. It is assumed that when a physician is professionally engaged in the conduct of a case, he has exhausted all modern means to properly interpret the symptoms, the so-called "surface play of disease"; that he has availed himself of the latest

instruments and equipment known to his profession, in order that he may properly diagnose the disease under consideration.

The failure to properly examine a patient and weigh carefully and group symptoms, is the rock upon which many a medical craft is wrecked, and the stigma of superficiality and incompetency surely attaches to such slovenly habits. Miscarried therapeutics is the inevitable outcome of carelessness and faulty mental processes. It is axiomatic that the physiological action of any given drug is not subject to change. A dose of calomel or ipecacuanha acts to-day as it did fifty or one hundred years ago. Our knowledge, however, of these drugs may have become much enhanced through our own experience and the experience of our confreres. Of necessity some empiricism, that opprobrium of our profession, is engrafted upon so-called scientific therapeutics, but with the spirit of inquiry pervading the body medical, may we not hope for the day when we administer a drug, we may do so with a definite idea as to the pathologic condition and a specific knowledge as to how that condition will become influenced by medication? Long before the discovery of the parasites which are the cause of malarial fever, the value of quinine was well recognized as a curative agent in this disease, but it remained for the pathologist to demonstrate that the disease was cured by the killing of these organisms in the blood. There are some drugs whose action is, as yet, imperfectly understood in the treatment of certain diseases; however, so direct are the results of their use, that in a few instances they may justly be termed specifics. Pari passu with progress in pathology will scientific therapeutics advance, bringing laurels to the brow of the physician as modern asepsis has to the surgeon.

A word might be said of the occasional tendency among some medical men to accept their therapeutics from the hundred odd manufacturing specialty houses. This practice can only be perversive of scientific growth, destructive of the individual therapeutic thought and tending to "therapeutic nihilism" which should have no place in the vocabulary of the progressive physician. Physiological therapeutics has as much reference to preventive medicine, in which every physician is intently interested, as it is a recognized agent in established disease. This former phase of professional work involves the education of his clientele in the laws of right living; in those of heredity, of sanitation and public health. It carries with it the idea of the individual and his environment, including food, climatic adaptation, occupation, exercise and personal hygiene.

No thoughtful man can gainsay the accumulated evidence of countless observers as to the value of hydrotherapy in many diseases, notably typhoid fever, whose mortality has been wonderfully lessened by its use; of the "Weir Mitchell Rest Cure" in neurasthenia; of massage in numberless conditions which have responded to its beneficent action; of the out-of-door life of the consumptive; of the benefits of electrotherapy, intelligently and honestly administered; of consistent exercise, so generally accepted as a measure for the preservation of good health that, in theory at least, it has had the sanction of all peoples from the dawn of history. The question of diet has assumed such importance, that text-books are devoted to foods, their composition and relative values, and the practical application of the knowledge so gained to disease. All of the foregoing considerations carry with them in their essence the idea expressed in the question, "physiological therapeutics," and are in the truest sense rational preventive agencies of disease and most important auxiliaries to any medication. The domain of the surgeon has undergone such incredible expansion, that almost no part of the body is too sacred for the invasion of his scalpel. Admittedly, many diseases once treated medically and unsuccessfully are, in the light of better understood pathology and modern asepsis, treated surgically and successfully. The brilliant results of a deftly-performed surgical operation in many cases, which for months or it may be years, have been drugged unsuccessfully, are somewhat dazzling to ambitious medical men who are rather apt to acquire an obliquity of vision, seeing a surgical side to almost every conceivable complaint.

What seems desirable is a broad, candid, unprejudiced approach to the subject of disease on the part of the internist and the surgeon, each recognizing his limitations, wherein lies his strength. The honor which comes to a surgeon, who by operation saves a human life, should in no sense detract from that honor which of right belongs to the physician who makes a correct diagnosis and refers the patient for surgical treatment. It is true that perhaps the glamor which surrounds the surgeon; the rather wide publicity which is accorded a surgical operation; the human tendency to admiration for the boldness, the audacity of an operator who would with the utmost sang-froid invade vital parts; have attracted many men from the medical to the surgical ranks. The question of large fees has not been included in the seductive allurements, for to do so would be to impute motives to aspiring surgeons which all professional men of honor would justly disclaim. The function of the medical man is the cure of disease, and the weapons which he uses must be taken from that armory which furnishes the most effective ones, be they medicinal, physiological, surgical, or all of them.

It is the opinion of the writer that drugs are administered with greater precision and intelligence than ever before. Individual failures in medicinal therapeutics can frequently be traced to slipshod methods of diagnosis, ignorance of physiological effects of drugs, or of underlying pathology of disease. Physiological measures are of inestimable value as auxiliaries and remedial agents in disease. In science there can be no conflict over truth; it is the light which beckons all investigators. There can be no issue between the internist and the surgeon in the interest of medical progress; truth is the goal for which each is striving.

R. C. McDonald, Fremont.

The tenth quadrennial congress of Polish physicians and scientists will be held in Lemberg, Austria, July 20 to 24, 1904. Dr. Francis E. Fronczak, of Buffalo, N. Y., is the United States representative of the committee of arrangements.

Notes and News.

DR. SMITH, of Alton, Ia., has gone to Europe for a short trip.

THE Page County Medical Society met recently in Coin, Ia.

DR. H. A. ABBOTT, of Phillips, Neb., has located in Union, Neb.

DR. J. C. ADAMS, of Lake City, Minn., is visiting in Topeka, Kan.

DR. S. J. ELKIN, of Emerson, Man., has moved to Winnipeg, Man.

DR. F. W. KEEHL, of Waterloo, Ia., died recently of typhoid fever.

DR. CHESTER MILLER, of Fontanelle, Ia., has located in Macksburg, Ia.

DR. J. M. GREENE, of Platsmouth, Neb., has located at Louisville, Neb.

DR. JUL. LONGENFELDER, of Beemer, Neb., has located at West Point, Neb.

DR. A. J. TICTIN, of Maynard, Minn., has located in Clara City, Minn.

DRS. PORTERFIELD & CAMPBELL, of Atlantic, Ia., have dissolved partnership.

DR. WOOLSON, of Mt. Lake, Minn., has located in Fergus Falls, Minn.

DR. SUTTON, of Shenandoah, Ia., who has been reported ill, is improving.

DR. JAMES W. GEORGE, of Hibbing, Minn., has located in Aitkin, Minn.

DR. J. M. H. STOVER, of La Moure, N. D., has moved to North Yakima, Wash.

DR. W. A. MCCLANAHAN, of Redding, Ia., has returned from Galveston, Tex.

DR. CHAS. H. SHRODES, of Excelsior, Minn., left recently for the Pacific coast.

DR. B. H. CHEDECK, formerly of Sioux City, Ia., has located in Verdigre, Neb.

DR. J. M. NEELY, of Elmwood, Neb., has been appointed county physician.

DR. W. W. FRANK, of Monroe, Neb., has returned from his home at Coin, Ia.

DR. SHANELY, of Lidgerwood, N. D., has left for a trip through the south.

THE funeral of Dr. Holly M. Mills, late of Osceola, Neb., was held January 30.

DR. G. M. CARLISLE and Miss Paulina Kafka of Diagonal, Ia., were married recently.

DR. J. O. LATTA and Miss Ada Bayinger, of Clay Center, Neb., were married recently.

DR. J. R. MCHUGH, recently of Gettysburg, S. D., is now located at Custer, S. D.

DR. J. R. BOYD, a former resident of Defiance, Ia., died recently at Cleveland, Obio.

THE firm of Drs. Whetstone & Brimhall, of Cass Lake, Minn., has dissolved partnership.

DR. HALDEMAN, of Ord, Neb., has been reported on the sick list, but is now improving.

DR. J. W. SELLARDS, of Clarinda, Ia., and Miss Lena Plank were married on January 7.

DR. L. M. SHAW, of Osceola, Neb., was appointed county physician for the ensuing year.

DR. ELLIOT, of Concord, Neb., has gone to California for a trip of about three months.

DR. FREDERICK CORFE, of Union, Ia., died January 30. His death was due to heart failure.

DR. LAWRENCE, of Russell, Ia., a physician whose age is 77 years, has located at Tabor, Ia.

DR. F. F. ATTIX, of Lewistown, Mont., has returned from the east and has resumed practice.

DR. A. E. WALKER, of Murray, Neb., who has been traveling in the east, has returned home.

DR. SKOOG, of Langden, N. D., has accepted a position in one of the insane asylums in Kansas.

DR. D. H. NUSBAUM, an Illinois surgeon, with his brother, Dr. L. M. Nusbaum, of Storm Lake, Ia., have purchased a building in Storm Lake which they intend to remodel for a sanitarium.

DR. J. H. WINNETT, of Lincoln, Neb., has gone to California for a stay of about three months.

DR. W. B. LYMAN, of Wisconsin, has located in Deadwood, S. D., for the practice of medicine.

DR. W. C. EGAN, of Atlantic, Ia., has donated to the library medical books to the value of $400.

THE Drake University medical building at Des Moines, Ia., was formally opened on January 29.

DR. HICKOK, of Carleton, Neb., has disposed of his practice to Dr. Westerhoff, of Fairbury, Neb.

DR. ERNEST ROBINSON, of Kansas City, was married recently to Miss Mary Kip, of San Francisco.

DR. J. CLARK COOPER, a physician of Defiance, Ia., has succeeded Dr. J. H. Nichol, of Villisca, Ia.

DR. C. L. LE MAR, who has been practicing medicine in Wyoming, located recently in Osceola, Neb.

DR. WM. M. THELSSEN, of Henderson, Minn., has succeeded Dr. B. E. Lord as coroner of Sibley county.

DR. MCKINLEY, of Humphrey, Neb., was quite ill during the month of January, but he is improving now.

DR. Z. F. DANIEL, formerly of Pine Ridge, but recently of Rosebud Agency, has located in Rushville, Neb.

DR. LOUIS BUSHMAN, of Omaha, Neb., has left Omaha for a year's engagement in the gold mines of Ecuador.

DR. H. E. ARMSTRONG, of Billings, Mont., has recently returned from a trip to Canada and the eastern states.

DR. EDMUND ANDREWS, one of the oldest and most widely known physicians in the west, died at Chicago recently.

DR. LOUIS A. THOMAS, of Red Oak, Ia., recently attended the meeting of the state health officers held in Des Moines.

DR. J. C. CUMMINGS, of Minneapolis, has located in St. Hilaire, Minn., for the practice of medicine and surgery.

DR. J. W. LEHAN and Miss Helen Baird, of Dunlap, Ia., were married on January 20. Their home will be in Dunlap.

DR. C. T. LESAN, of Mt. Ayr, Ia., attended the recent meeting of the Iowa Association of Health Officers, at Des Moines.

DR. C. T. LAWRENCE, formerly of Indiana, but who has been practicing in Iowa for several years, has located in Taylor, Ia.

DR. J. H. THOMPSON has retired as manager of the Albion Hospital at Albion, Neb., and Dr. Manchester has full control.

DR. E. A. JENKINS, of St. James, Minn., has located in Shelbyville, Ill., where he has purchased an old established practice.

DR. S. D. NIXON, of Kearney, Neb., has been appointed physician and surgeon to the Englewood Union Hospital of Chicago.

DR. A. E. GADBOIS, of Humphrey, Neb., was married the latter part of January to Miss Marie Desparois, of Sioux City, Ia.

DR. HENRY MCCARTHY, of Struble, Ia., who has recently finished a course in the Rush Medical College, has located in Chicago.

DRS. MEREDITH & CLARK, of Ashland, Neb., have dissolved partnership, but both the physicians will continue to practice in Ashland.

DR. MCALVIN, of Grundy Center, Ia., has purchased an interest in the practice and office equipment of Dr. Wick of Cedar Falls.

DR. WINDELL has been appointed local physician for the Dakota division of the Great Northern road, with headquarters at Minot, N. D.

DR. J. J. MEEHAN, of Missouri Valley, Ia., has been appointed to the staff of physicians and surgeons of Mercy Hospital, Council Bluffs, Ia.

TYPHOID fever is very prevalent in and about Waterloo, Ia., at the present time. There were about 200 cases there the latter part of January.

DR. C. P. DOLAN, of Waterville, Minn., has moved to Worthington, Minn., to assume charge of the practice of the late Dr. Edward Dolan, his brother.

DR. CHARLES A. BOWER, of Mitchell, S. D., has been appointed grand medical examiner of the Home Guardian Grand Lodge of South Dakota, to take the place made vacant by the resignation of Dr. J. H. Smith, of Huron.

The Gage County Medical Society met recently at Beatrice, Neb., and elected the following officers: President, Dr. Gillespie, Wymore; vice-president, Dr. McKibben, Adams; secretary-treasurer, Dr. Pickett, Odell; censors, Drs. Curry, Brash and Love, Beatrice.

A Travelers' Health Association has been formed in Nebraska, with its business office in Omaha. The nature of the business to be transacted is to pay indemnities for loss of time because of sickness, for accidents and to pay benefits in case of accidental death.

The Clay County Medical Society met in Clay Center, Neb., and elected the following officers: President, J. W. Thompson, Sutton; vice-president, J. O. Latta, Clay Center; secretary, A. R. Ray, Fairfield; treasurer, F. H. McCabe, Fairfield. The next meeting will be held in March.

At the recent meeting of the Marshall County Medical Society held in Marshalltown, Ia., fifteen members of the society were elected. Dr. C. C. Cottle was appointed as a delegate to represent the society at the annual meeting of the state society, to be held in Des Moines next spring.

The state board of health of Nebraska is preparing to enforce the law requiring physicians to report to that body the existence of contagious diseases, including smallpox, cholera and yellow fever. Every physician who fails to report promptly the same shall be deemed guilty of misdemeanor, and upon conviction shall be fined in any sum not less than $10 nor more than $100 for each offense.

The Lancaster County Medical Society held its regular meeting at Lincoln on January 12. Dr. Le Roy Crummer, of Omaha, was present and read a paper on "Exophthalmic Goitre." The second meeting of the year was held February 10th and by a special invitation Dr. Singer, the celebrated specialist of London, England, was present and read a paper on "Some Points in Jacksonian Epilepsy."

Dr. T. C. Haecker, of Hampton, Ia., who was recently appointed assistant surgeon of the Iowa Soldiers' Home at Marshalltown, Ia., to succeed Dr. R. B. Sweet, resigned, began his duties the first of February. Dr. Sweet, who has been assistant surgeon at the Home for the past eighteen months, left for Clarion, where he enters into a copartnership with Dr. J. H. Sams of the state board of health.

The Johnson County Medical Society held its annual session at Tecumseh, Neb., January 28. Dr. A. R. Mitchell, of Lincoln, Neb., was present and read a paper on "Calculus Pyelitis." The officers elected for the year are Drs. E. T. Black, Cook, president; A. P. Fitzsimmons, Tecumseh, vice-president; C. K. Chubbuck, Tecumseh, secretary-treasurer; T. J. Reed, Crab Orchard, delegate to state convention.

At the St. Joseph's Hospital in Omaha an operation for skin grafting was recently done which will result in the patient receiving a whole new scalp. The skin used in grafting was taken from the thigh of a patient in the hospital while he was under an anesthetic. Thin strips of the outer skin, about an inch wide and from one to ten inches long were peeled off and placed on the patient's head. A surface of skin amounting to 150 square inches was thus transferred.

Dr. J. W. Harriman, head of the anatomical department of the state university medical department at Sioux City, Ia., died January 25 after three weeks' illness following an operation for appendicitis. He had been connected with the university fifteen years and was widely known in surgery. He held the record of 300 operations for appendicitis without a single death. Dr. A. A. Beane, of What Cheer, Ia., a seatmate of Dr. Harriman's at the state university, died on the same day from an attack of peritonitis.

Book Reviews.

Progressive Medicine, Vol. IV, December, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 434 pages, 46 illustrations. Philadelphia and New York: Lea Bros. & Co., Publishers.

This volume completes the year 1903 and is perhaps the most interesting of the series. In the article on Surgery, Dr. Bloodgood, of Johns Hopkins, gives a very full discussion of Anesthesia, both general and local, together with the recent advances in the treatment of fracture and dislocations. Blood changes in chronic renal diseases and advances in our knowledge of albuminuria and indicanuria form the subjects of a very interesting paper by Dr. Harrington, of Harvard. Perhaps the most important article in this volume is a very complete and able discussion on Diseases of the Digestive Tract by J. C. Hemmeter, M. D. It embodies the recent discoveries of Futterer and Pawlow on digestive function, the bacteriology of Infant Diarrheas and a full consideration of diagnosis and treatment of Hepatic and Gall-Bladder diseases.—C. W. M. P.

A Text-Book of Obstetrics. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Handsome octavo, 900 pages, with 746 illustrations, 39 of them in colors. Fourth edition, enlarged and thoroughly revised. Price, cloth, $5, net; sheep or half morocco, $6, net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

About a year ago we reviewed an edition of this work published in 1901. The general plan of the work has not been changed, but this edition shows some valuable improvements. More attention has been given to diseases of the genital organs associated with or following child-birth and recognizing that many of the gynecologists' cases are caused by errors or ignorance of the obstetrician. The author presents the complications of child-birth and their preventive treatment very fully. Many of the old plates have given place to new ones and a few entirely new have been added. The subject is treated from a clinical standpoint which makes the work especially valuable for consultation.—C. W. M. P.

International Clinics, Vol. III. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, etc. Edited by A. O. J. Kelly, A. M., M. D. 13th series, 1903. Philadelphia: J. B. Lippincott Co.

The first hundred pages of this volume are devoted to diseases of the gall-bladder and ducts. The various aspects are presented by Musser, Deaver, Rudolph (Canada), and others. Dr. D. W. Finley writes extensively on the treatment of pneumonia. He thinks no routine drug treatment of any value, and that antipyretics and nauseating drugs, even digitalis, should not be used, for they tend to cause heart failure and interfere with nutrition. In the presence of high temperature, cold by bath or sponging is desirable. Dr. F. J. Poynton presents a very valuable article on Clinical Evidences of Myocardial Damage in Rheumatic Fever. The papers worthy of mention are Asepsis and Antisepsis, by Dr. Lucas-Championniere, and Concussion of the Brain, by W. L. Rodman, M. D.—C. W. M. P.

The Self-Cure of Consumption Without Medicine, with a Chapter on the Prevention of Consumption and Other Diseases. By Chas. H. Stanley Davis, M. D., Pr. D. New York: E. B. Treat & Co. 1904.

To quote from the preface, "the object of the book is to show how consumption can be cured from its beginning to the last stages before actual decay of the lung takes place." The reviewer is in doubt as to whether this book is intended for the laity or profession. The work is a short resume of the etiology and treatment of the disease and not, as the title would lead one to suppose, a short route to health. He dwells to quite an extent on the value of sanatoria and fresh air in treatment and also places stress on proper dieting to keep the body resistance at the maximum. There is nothing new in the work and it is too brief to satisfactorily cover the ground outlined.—C. W. M. P.

Social Diseases and Marriage. Social Prophylaxis. By Price A. Morrow, A. M., M. D. Philadelphia and New York: Lea Bros. & Co., Publishers. 1904.

This is the first comprehensive work to appear in our language on the subject. The author deals with the dangers introduced by venereal diseases into marriage. The "social evil" is only referred to in its aspect as an etiological factor or in prophylaxis. After discussing the fearful

results of marriage of apparent cured and uncured cases, the author presents the duties of the physician as protector of the wife and children. The physician should remember that his duty does not end with his patient but that he has an obligation toward the innocent wife and offspring, and when consulted by a man who has had venereal disease for his sanction of the matrimonial venture, he should be sure that there is no possibility of a latent infection before giving his consent. In carrying out our ideals of preventive medicine we are confronted by many difficulties and problems which are made much easier by reading Dr. Morrow's work. The volume is comprehensive and scholarly and a valuable addition to our libraries.—C. W. M. P.

BOOKS RECEIVED.

The Self-Cure of Consumption Without Medicine. With a Chapter on the Prevention of Consumption aud Other Diseases. By Chas. H. Stanley Davis, M. D., Ph. D. New York: E. B. Treat & Co. 1904.

The Blues (Splanchnic Neurasthenia). Causes aud Cure. By Albert Abrams, A. M., M. D., Heidelberg, F. R. M. S. Illustrated. New York: E. B. Treat & Co., Publishers, 241-243 West Twenty-Third street. 1904.

The Practical Medicine Series of Year Books. Issued monthly. Under the general editorial charge of Gustavus P. Head, M. D. Volume III. The Eye, Ear, Nose and Throat December, 1903. Chicago: The Year Book Publishers, 40 Dearborn street, Chicago.

Iuternational Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, etc. By leading members of the medical profession throughout the world. Volume IV. Thirteenth Series, 1904. Price, cloth, $2, net. Philadelphia: J. B. Lippincott Co. 1904.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, etc. By leading members of the medical profession throughout the world. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia. Volume III. Thirteenth Series, 1903. Philadelphia: J. B. Lippincott Co. 1903.

The Treatment of Fractures: With Notes Upon a Few Common Dislocations. By Chas. L. Scudder, M. D., Surgeon to the Massacnusetts General Hospital. Fourth edition, thoroughly revised, enlarged, and reset. Octavo volume of 534 pages, with nearly 700 original illustrations. Polished buckram, $5, net; sheep or half morocco, $6, net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

Morrow on Social Diseases. The Relation of Social Diseases and Marriage. By Prince A. Morrow, A. M., M. D., Emeritus Professor of Genito-Urinary Diseases in the University and Bellevue Hospital Medical College; Surgeon to the City Hospital; Consulting Dermatologist to St. Vincent's Hospital, etc., New York. In one octavo volume of 390 pages. Cloth, $3, net. New York and Philadelphia: Lea Brothers & Co., Publishers. 1904.

A Text-Book of Legal Medicine and Toxicology. Edited by Frederick Peterson, M. D., Chief of Clinic, Nervous Department of the College of Physicians and Surgeons, New York; and Walter S. Haines, M. D., Professor of Chemistry, Pharmacy, and Toxicology, Rush Medical College, is affiliation with the University of Chicago. Two imperial octavo volumes of about 750 pages each, fully illustrated. Per volume, cloth, $5, net; sheep or half morocco, $6, net. Philadelphia, New York, London. W. B. Saunders & Co. 1903.

The American Year-Book of Medicine and Surgery for 1904. A Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A. M., M. D. In two volumes. Volume I, including General Medicine. Octavo, 673 pages, fully illustrated; Volume II, General Surgery. Octavo, 680 pages, fully illustrated. Per volume, cloth, $3, net; half morocco, $3.75, net. Philalelphia, New York, London: W. B. Saunders & Co. 1904.

PAMPHLETS RECEIVED.

Lacunar Tonsillitis. By James Moreau Brown, M. D., Chicago. (Reprint from the Interstate Medical Journal, December, 1903.)

Correct Breathing. By James Moreau Brown, M. D., Chicago. (Reprint from the Medical Standard, August, 1903.)

Are We to Have a United Medical Profession? By Charles S. Mack, M. D., La Porte, Ind. 1904. Published and for sale by the author.

The Treatment of Papilloma of the Larynx in Children. By J. E. Summers, Jr., M. D., Omaha, Neb. (Reprint from the New York Medical Journal, August 22, 1903.)

Excision of the Frenum Preputii Following Laceration During a Suspicious Intercourse. By Charles C. Miller, M. D., Chicago. (Reprint from the Medical News, January 2, 1904.

The Degree to Which Substances Agglutinating the Dysentery Bacilli are Present in the Blood of Non-Infected Persons. By Lawrence B. Pillsbury, A. B., M. D., New York. (Reprint from the Medical News, New York, December 5, 1903.)

WE DO SOME THINGS BETTER OVER HERE.—A "natural doctor" of Elberfeld, Germany, having founded a "Union for Natural Healing," his book on the diseases of the eye was criticised in the public press as a humbug, by medical men of Elberfeld and Barmen. Whereupon the quack, Thiel by name, announced a "free course for physicians in the diagnosis of the eye." This has led the entire medical profession of the two towns to sue Thiel for the insult to their dignity. —GIFFORD.

THE BUTLER TYPHOID EPIDEMIC.—The epidemic of typhoid fever at Butler, Pa., seems to have practically run its course. The census conducted under the auspices of the Pennsylvania state board of health was completed January 5, and showed that up to that date there had been 1,316 cases and 84 deaths. Deaths occurring in other towns attributable to infection in Butler bring the total number of deaths up to 95. The number of deaths from typhoid fever at Butler up to January 15 reached a total of 101. A very few new cases continue to be reported. The officials of the state board of health in charge of the local situation state that they have obtained information regarding the existence of no fewer than seventeen cases of typhoid fever on the watershed of the contaminated creek during the summer and fall of 1903. The relief committee has issued the statement that the funds now in hand are sufficient for the prospective needs and that no more outside assistance will be necessary; it has also expressed public thanks for the generous assistance rendered by physicians, nurses and the general public. The total amount of money received is between $50,000 and $55,000, and a surplus of about $10,000 still remains.

OYSTERS AND TYPHOID FEVER.—The towns known as "The Oranges" in New Jersey have been suffering from more typhoid fever than usual this year, and a recent increased prevalence of the disease led to a careful investigation by the health board of the city of Orange. As is usually assumed, this increase was at first attributed to the water supply. Careful bacteriologic investigation, however, failed to confirm the suspicion of possible sewage contaminations of the drinking water

of the town. It was found, however, on investigation, that a number of the patients suffering from typhoid fever had been hearty eaters of raw oysters, especially in the period shortly before their fever manifested itself. The local health officer declares that "careful investigation has confirmed us in the belief that the present outbreak of typhoid fever has resulted from the consumption of oysters procured from infected beds." This is, of course, not the first time that such an origin of typhoid fever has been suggested, but it should recall attention to the present methods of marketing oysters. Unfortunately many people seem to regard the plump white oysters, so often served now in restaurants, as preferable to the grayish, rather thin oysters that the gourmet of a few years ago was accustomed to consider the luscious delicacy best suited to his taste. Because of this false taste, oysters are bleached and rendered plump by dealers on the way to local markets. Normally oysters are accustomed to sea water. If they are removed therefrom and placed in fresh water for a time, they become much whiter than before and apparently grow fat. This plumpness, however, is not due to any addition of substantial material to the oysters' tissues, but only to the retention of more water than under natural circumstances. In a word, it is a question not of digestion of food and consequent accumulation, but rather a freak of osmosis. In order to secure this specious appearance of plumpness, oysters are not infrequently placed in fresh-water streams for a time before being served. Needless to say, with the present increase of population in this country, there are very few fresh-water streams that are not subject to contamination by sewage. Owing to the fact that oysters gather their food from water that flows by them, they are sure to retain any organic particles present, and typhoid bacilli thus find not only lodgment but a favorable culture medium in the oyster tissues. The fresh water apparently renders digestive processes in the oysters so sluggish that bacilli thus retained are not digested, as would be the case under normal conditions of life, but, on the contrary, actually increase in numbers, leaving the host still more incapable of resisting invasion. It would, therefore, seem rather important that, first, the present mistaken taste for bleached, plump oysters, which any connoisseur well knows are by no means equal to the thinner, grayish oyster fresh from the sea water, should be corrected; second, the present habit of dealers in supplying this false taste of their patrons should be officially discouraged, if not actually forbidden. Those who feel they must indulge in the luxury of uncooked oysters should be careful to know the source of the bivalves supplied them, and especially whether the bleaching, fattening process has been carried out in water that is above suspicion. These precautions are even more important in the inland towns at a distance from the seacoast than near the fishing beds of the oyster, because when oysters are shipped to some distance they take on an even flabbier appearance than normal, and dealers are tempted to improve their looks by the often dangerous process of immersion in fresh water.—Ed. Jour. A. M. A.

Original Articles.

THE PHYSIOLOGICAL ACTION OF DRUGS IN PATHOLOGICAL CONDITIONS.*

By A. G. EMERSON, M. D.,
LEWISTON, NEB.

Perhaps a more proper heading for this paper would be: A Plea for a More Scientific Treatise on Therapeutics.

No other element creates the criticism and distrust of the practitioners of the regular school of medicine as does their wide differences of opinion of the value of a given drug in a given case. It may be truthfully said of us that our ranks contain medical fanatics, medical skeptics, and a few, very few, medical scholars who place a rational faith, and no more than a rational faith, in the remedial power of any medicinal agent.

The fanatic is often youthful in years and far more theoretical than practical. With his hypodermic syringe in hand he wanders across field and brook, bagging the innocent animal of diminutive dimensions and administering to it inordinately large doses of his favorite drug. From these experiments he deducts his definite idea that this same drug will, without fail, produce like results in any case. The result is that he gives, and continues giving, dose after dose of his favorite nostrum, with the result that, instead of getting the physiological effect of which he is so sure, he gets a glimpse of the white horses, the hearse, and six gloved men. Our fanatic is now very likely to join the ranks of the sewing-machine agent, horse trader or a similar pursuit which permits of both more money and the exercise of a greater degree of veracity than does the practice of medicine.

And why this fatality? Why these disastrous results? Simply because our theorist was impractical enough to lose sight of the well-known fact that one should never whip a jaded horse. In other words, beware of administering a stimulant when the mortal mechanism demands the soothing effect of a sedative.

So much for our fanatic. He has simply learned the physiological action of drugs and attempted to gain their characteristic effect, when the condition of his subject was not physiological but pathological instead. As intimated, he may have left our ranks for those less irksome and more lucrative, but the chances are that he is still with us in the role of medical skeptic.

Let us also analyze the character of this individual; for by this method I believe I can more deeply impress upon you the point I desire to make, namely, that our therapeutics are notoriously unscientific, which results disastrously to a unity of opinion. This is true because the field of therapy has been overlooked in the rush toward bacteriology, asepsis and surgery.

Our medical skeptic is, strangely enough, a man with a thriving practice, a level head, if you please, and generally a good, honest heart,—because, if he were not honest, it would never be known that he was skeptical. He is thorough in dietetics, is rigidly aseptic, and generally very partial to hydrotherapy. He

* Read before the Pawnee County Medical Society, December 7, 1903.

is master of psychology and has gained a grand reputation on diagnosis, and is almost perfect in point of prognosis. And why? Because his symptoms are not masked by medication, and the course of a disease is neither shortened nor made more severe by medicinal agents. In fact our skeptic would be an ideal man, were he not narrow-minded enough to imagine that castor oil, calomel, sodium bicarbonate and whiskey are not medicines.

You observe his inconsistency. He scoffs at drugs and yet unconsciously, you may say, he wields these great and powerful weapons, and goes on doing good by the very means he pretends to deplore.

Have you met our medical skeptic? Is my paper a farce, and too light reading for our society, or is there an undercurrent of fact herein that should awaken an effort to discover the cause of an erroneous condition within our ranks?

And now, having advanced from the fanatic to the skeptic, it may seem strange that we have but a step farther to our ideal—the medical scholar. He it is who rivals the skeptic in popularity and excels him in the practice of scientific medicine. He, too, uses the few drugs employed by the skeptic; and he also uses many more, and uses them with a master hand, knowing exactly what to expect from the administration of his agent, because he weighs all of the indications carefully and then chooses the agent and the amount of the agent to suit that particular case.

The medical scholar knows that there is a difference between health and disease. He knows that the physiological action of a drug, in the strict meaning of that term, would be the effect obtained by administering that drug when the anatomy and bodily functions were normal. He knows that when an abnormal condition obtains the same dose of the same drug may cause widely different results. This point is really the theme of my paper. And what shall I write? My experience in the practice of medicine is of less than three years' duration, and that largely made up of mistakes. Our literature is very loose and unscientific on the subject. Three pages are devoted to the physiological action, and then a line added stating that the agent is often employed in pneumonia, nephritis, etc.

Now the field is open. The problem is unsolved. We have not gotten our agents to be used in a given case reduced to a system, and right there we are unscientific. Yet, one may say, you would have us become Hannibalites or Scudderists—they have it written in letters of gold, in major type, just what to administer as a specific. My answer is that Waugh and Abbot also specify, but to my certain and sorrowful knowledge, their calcium sulphide does not always destroy pus.

It is not specifics that I would ask for, but rather a scientific explanation of how your specific gets in its miraculous action. I would plead for a materia medica that would begin with "A," and under "A" place Aconite, and after Aconite place Asthma, and then tell me how this agent acted in that particular pathological condition. And then pass down through all the list, ringing the changes of the action of aconite in all the diseases, then carry all the agents through all the diseases and give us a scientific explanation of the action in each case.

One may say, What a waste of print and paper! And I reply, Why are your piles of rubbish on stomachs, and kidneys, tumors and germs, so complex that the general practitioner can not afford time to search out his point, while the specialist is too envious to read his rivals' work? Whereas, a carefully indexed materia medica could be instantly instructive, and one need read but of the action of one drug in one case if he so desire, but that one would be found and its action recorded in every disease, from diabetes to a sour stomach.

Again, one may say, But you would never think of giving bromides in a condition of collapse from shock. Then, why waste time telling not to give them? And I would answer that I want to know why not. I want to have it tried, I want to be scientific, and in my mind we are desperately unscientific.

One authority advises vaso-motor contractors in hemorrhage in order to close the bleeding ends of a vessel. Another says dilators, for the vaso-motors check the flow by yielding less pressure to expel the blood. Both may be right, but science generally has but one right way—and I plead for a scientific materia medica.

We are too far apart—our ideas are too divergent. Let us urge on our pathologists and encourage our hospital experts to try out the different drugs in the various diseases and report the results.

I predict that the time is not far distant when a series of surprises await us in the field of therapeutics. My belief is that the action of a drug in the same individual is as greatly modified by the different diseases as is the drop of water as it falls upon the bar of steel—to-day in the shade—to-morrow in the sun—again in the crimson forge, and at last on the snow-white drift where it instantly becomes a speck of ice. It was the same drop of water, the same bar of steel, but what of the results?

And so, to me, it seems that we have been following a false god. We administer that which acted well in health, but we forget that the frail system may be to-day in the shade, to-morrow in the sun, again in fever's forge, or upon the icy pinnacle of shock. In our most critical cases we choose our most powerful agent and seek to obtain the physiological action, but too often we gain terrible inaction instead.

MEDICAL ETHICS AND PERSONAL MORALS.*

BY A. S. v. MANSFELDE, M. D.,

ASHLAND, NEB.

It is not altogether impossible that with the advent of a so-called more liberal interpretation of the code, now called the "Principles of Medical Ethics of the American Medical Association," evils are slipping in which may prove of decidedly more harm to the dignity of the profession and the medical rights and privileges

* Address of retiring president, delivered before the Saunders County Medical Society, Wahoo, Neb., January 14, 1904.

of the individual physician, than were encountered under the restrictions of the old code. What we gain in members in our associated societies we may lose in quality of medical ethics and personal morals. Liberty of action and of license, if not related, are grown in such close proximity, that hybridization is very apt to occur, giving rise to products at once hideous and dangerous, if not deadly to the best interests of our noble profession.

The president of the Nebraska State Medical Association has seen fit to appoint as the chairman of the Legislative Committee of that body a member of the auxiliary committee of the Committee on Medical Legislation of the American Medical Association. In his search for material to report upon, he has come in contact with so much that is flavored with ethical wrong-doing in the profession and of moral weakness of some of its members that he is almost tempted to resolve himself into a commission to formulate a criminal code defining crimes against medical ethics and personal rights in the profession and providing proper punishment for all evil-doers. In formulating a code of conduct, the American Medical Association has gone as far as the Golden Rule will permit; and the great ideal thus established lacks in nothing but emulation by the majority of the profession, and in a virility which knows how and does bring home its roaming children; and if this is not possible, lacks utterly in furnishing even a hint of how these same erring ones shall be disciplined,—sent to a medical reform school, so to speak, or, if incurable, to a medical hades.

The most that is offered in current medical literature is the suggestion that "The principles of ethics of medicine be made a part of the teaching curriculum in our medical colleges." This is good as far as it goes, but we know that, though medical ethics are not taught systematically anywhere, they are taught by word of mouth and by acts of many of the teachers in our medical schools hour after hour, day after day and term after term; yet little good they do, or seem to do. The same charge that is here made, that the lack of systematic teaching brings forth such great crops of medical perverts, is being made in regard to the lack of religious instruction in our public schools, as a means of furnishing a crop of moral perverts, when everybody with sufficient intelligence, who has ever attended the public schools, and the thousands of persons who are ex-teachers and who are active teachers therein to-day, know, or ought to know, that from the kindergarten to the college, daily and hourly, every virtue that may be called Christian is propounded to and pounded into the minds of the children; yet judgment to the contrary loses sight of the fact that human cussedness is the same and found everywhere in spite of such teaching. It surely is rampant in the medical profession, and it is well to say with Dr. Robert T. Gilmore: "We have no right to ask the public to respect us when we do not respect each other. We must turn out from our colleges, as indispensable qualifications, men who are ethical to a degree. A majority of us to-day must turn over a new leaf in our attitude towards each other. We must pull up the commercialism, root and branch, that is eating into our vitals like a cancer. We must never be too busy, too overworked, too successful, to do with others as we would wish them to do unto us." And further on he says: "I venture the statement that I can send one of my patients on whom I have recently performed an abdominal section, on the rounds, in alphabetical order, to the physicians whose names appear in the Blue Book, or official directory, that she can go to each one of these men, with a like tale, that is, that she has recently undergone an operation by me, that she is no better, that she doubts as to whether I was honest with her in what I said I did, that she would like to be examined and have them give her their honest opinion as to the nature of the operation I performed. Barring some of the men who know me personally, I think I do not exaggerate when I say that three per cent. only might ask if I had been paid and discharged from the case. I doubt if it would occur to two per cent. to find out if I were a physician in good standing or, if they had a telephone in their office, take the trouble to call me up before proceeding to grab my bone because I was not looking, especially if there were any meat on it in the shape of currency. This is a busy, busy world, and so long as we, as a body, adopt the present method of business for personal gain, no matter at whose cost, let us not be so cowardly as to ask the public for any more consideration than they give to other business men. We are no better or no worse than the rest of tradesmen. Our religion is their religion: 'Every man for himself and the devil for us all.'"

This is an awful indictment, and, what is worse, every-day occurrences seem to make it a true one. Only a short time ago a member of the Nebraska profession, though living in a small town, yet known the state over as a lover of his profession and its membership; one old in years and practice, respected at home and abroad, whom no one would charge with lack of knowledge and professional courtesy, met with this experience: One of his old friends, whose family physician he had been exclusively for over twenty years, was taken with catarrh of the gall-bladder and gall-ducts very suddenly and very severely. The doctor asked for local counsel early in the case, a practice he always follows before sending abroad for additional help. This was granted readily, yet urgent request for outside help was not listened to until one morning, unannounced, an eminent practitioner from a neighboring city called to say that he had been sent for. Finding that the attending physician had not been advised of his advent, he declined to see the patient until he had consulted with his medical attendant; a conduct highly proper and certainly very agreeable to the country doctor, to whom the consultant afterwards confided that the day he spent in the humble home of his country brother would always remain a red-letter day in his memory. The case lingered on to final recovery because the patient did about as he pleased, and in consequence of this he was urged to consult a specialist, or more, in his particular condition, as it was probable that a recurrence of his attack was likely, if he was not extremely careful, a quality he does not possess. He left the advice unheeded until a few weeks ago he was brought in an almost dying

condition from the far west, with a renewed attack of the old disorder and an exhausted body. His critical condition was explained to the members of his family and expert counsel named and urged on them. This was most unkindly mistaken for personal prejudice and a mistrust displayed wholly unwarranted; yet no counsel of their own choosing even, called. But when the man was really out of danger a second time and convalescing, the attendant one morning was informed that two consultants were to come to see the patient and he was asked what he knew about them. His answer was: "The doctor from Lincoln I have met some years ago, when he was a young man. He seemed quite a reputable person, but of his professional attainments I know nothing. The doctor from Omaha (after making sure of his identity), for all I know, is a good physician. He certainly would be competent to decide the question whether or not you were pregnant, sir." The attendant was not told when the consultants would arrive. However, on the same day the one from Lincoln came at 2:20 p. m., and the one from Omaha at 4 p. m. They remained at the house about forty-five minutes, when the Lincoln doctor departed; the Omaha one remained until half-past six. In the meantime the attending physician observed their coming and going from his study window across the street. At the depot the Omaha consultant was greeted by a member of this society and the following conversation occurred: "Dr. ——, how is Mr. ——?" "Well, a man who in five weeks has lost thirty-five pounds, must be in quite a serious condition," or words to that effect. The oldest son of the patient said: "You know I am a business man and I thought it was about time that I knew what was the matter with my father, so I took the affair into my own hands and sent for counsel, whom I proposed to see my father without the intervention of the attending physician." The member of this society, after addressing a few words of admonition to the son, said: "Well, I earnestly hoped, for the honor of my profession, that no respectable physician in the state of Nebraska could be found guilty of such an act toward Dr. ——"; to which there was no response from the Omaha consultant. At his next visit the same evening, the attending physician asked the patient to be excused from further attendance upon him and his family, and thus ended a continuous friendship of twenty-five years and a service as physician of over twenty years. And all because two men, both prominent in their respective "isms," both medical officers of the state at the present time, had never heard of article IV, section 4, of the principles of Ethics, which reads: "A physician ought not to take charge of or prescribe for a patient who has recently been under the care of another physician in the same illness except in case of a sudden emergency or in consultation with the physician previously in attendance, or when that physician has relinquished the case or has been dismissed in due form." None of these things had been done, or were observed; they utterly disregarded the dictates of professional decency; rather listening to the statements of an unkind meddler, than to remember the professional standing of him, whom they ignored, insulted and wronged. Can such things exist without condemnation and just punishment? And what ought to be the fate of such creatures? This society has no jurisdiction over them, unless the state association passes a law like the criminal statute of the state, calling for a trial of the case where the crime was committed. In the meantime the doctor can console himself with this statement from the Omaha consultant: "So it was your conduct that deprived you of the family and not any action of mine." Indeed it was! It consisted in urgent advice of calling in counsel, naming the best men in the state, both in surgery and in medicine. More than that, careful reasons were given, when suspicion of the motives of the attendant was shown by the members of the family, why the best talent in that particular case was demanded, and the additional statement was made that when for the best interests of the patient this request was granted, the family could send for whom they pleased and for as many other consultants as they desired, that they would be welcome, provided they were gentlemen. Unfortunately they did neither of these things. Their own lack of the instincts of gentlemen called in beings who in every way were breeds of the same kind. What a horrid picture of the future of our great profession this affair foreshadows, if the younger generation does not step in and wipe out this unspeakably bad lot of miscreants, who are ready to sacrifice God, their country, their professional brethren and their patients, if need be, for the almighty dollar.

Article III, section 2, of the Principles of Medical Ethics adopted in May, 1903, by the American Medical Association, reads: "Consultations should be promoted in difficult cases as they contribute to confidence and more enlarged views of practice." Section 11 of the same article: "A physician who is called in consultation should observe the most honorable and scrupulous regard for the character and standing of the attending physician, whose conduct of the case should be justified, as far as can be consistently, with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in the attending physician."

Now these things are all right if the parties to the consultation are general practitioners, or occupy as nearly as possible the same position in the profession in regard to their general knowledge of medicine or specifically as demanded in the case under consultation. But the case becomes one of a decidedly different aspect, and in consequence presents phases of danger to the attendant our forefathers never thought of, when the attending physician is a humble country doctor and the consultant a noted specialist. This is the character of consultation more generally had at present, because the conscientious physician certainly will ask for a consultant who may render material service to his patient, because of greater learning and experience which he is supposed to possess. But because the conscientious attendant takes this view of the case, is the consultant, therefore, justified in assuming, or in acting as though he assumed, that the attendant knows nothing or next to nothing about the disease and its treatment? And upon that assumption goes to work and swallows the case, fees and all! In addition he leads the patient to the inerasible conclusion that his family

physician is "a very small pill"; when, if the facts were known, and the patient could fully appreciate them, it would be found that the country doctor, after all, in fully appreciating the nature and gravity of the case, thus leading the consultant to confirm him in his conclusions, perhaps, or to have some technical work done, which he fears he might do clumsily because of lack of practice, knows infinitely more than the hobby rider, who in many instances is very lopsidedly educated, and, what is still worse, is discovered to do the work after all more bunglingly than the attendant knows he could have done it. He has nothing for his pains but the injunction laid upon himself by his mortification and his courtesy to keep still about it. What wonder, then, for Dr. Gilmore, above quoted, to continue to say: "But I speak for the younger, struggling practitioner, when I say I know in a great number of cases that if the physician in charge be in any degree a sensitive man he is a moral coward when it comes to consultations. This is especially so if he is not personally acquainted with his consultant. Too often on his senior's arrival he waits breathlessly for whatever damage this man, who has made his mark in the world, may see fit to deal him. We all realize the fact that it is not the rule for the consultant to be careful not to walk into the sick room first. He frequently begins to examine the patient at once. He practically ignores the attending man, proceeds to interview the family, gives his diagnosis, prognosis, and treatment, and finally leaves behind him doubts in the family and lack of confidence in the attending man. He not rarely does more harm than good. Dr. W. H. Burr, of Phœnix, Ariz., in the Journal of the American Medical Association for January 31, 1903, presents a worse phase of consultation yet. The case was this: "A reputable physician, a graduate of one of the best schools in the country, and who had, at the cost of the usual amount of time and hard work, fitted herself for the practice of surgery, came to the city in which the eminent consultant was a resident and practitioner. Being a stranger, Dr. Brown (this is an ex-parte statement) introduced herself and presented her credentials to the eminent consultant and asked him if he would accord her the grace of his presence, advice and assistance in a surgical procedure on a private patient of hers; the operation to be performed in one of the leading hospitals of the city. The eminent consultant, Dr. Black, consented to furnish all these elements of grace with the following proviso: Dr. Brown was to do the operation, assume all the responsibility that goes with it, but in the case-book the record should read Drs. Black and Brown, and Dr. Black was to pocket two-thirds of the fee. If this were not related by one credible witness, one of the parties in the case, it would hardly be believable. Leaving out of consideration the matter of professional ethics and placing the case on the basis of ordinary commercial or business ethics, one would feel that a man who would treat a woman in that manner was hardly deserving of respect, much less of retaining his exalted position in the local profession. In this case Dr. Brown was helpless and the operation was concluded on the terms proposed."

In the one case cited the highway robbers invaded the town and took everything in sight; in the other, the poor, deluded victim went into the lion's den herself and came out of it with her life and honor, and she ought to be thankful, though she was plucked of almost all her pretty feathers. But what is to be done? The answer seems to be: Make the profession of medicine more ethical and individual members more moral; teach them ethics systematically in the medical schools, or, as another writer advises, use heroic means, publish in the medical press such outrageous acts and the names of the scoundrelly actors.

But, really, ought not the American Medical Association, through its Committee on Legislation in the house of delegates, promulgate a criminal code, as specific as experience with wrong-doing in the profession can make it? But when will this be done? Ever? Take the case of educational requirements for entrance to the freshman year of our medical colleges. Is it not a fact that the very inception of the American Medical Association was for this purpose? In its constitution we read that "the original design of the American Medical Association is the elevation of the standing of medical education in this country." Even at the last meeting of the association, when the committee on medical education brought in some excellent resolutions, they were sidetracked for want of sufficient funds, as the board of trustees called it. The advances in education have not emanated from the collective work of the association, but have always been owing to individual endeavor. Note the instance of Rush Medical College, which only a short time ago resolved that from and after the first day of July, 1905, no student for the freshman year would be accepted who had not concluded his junior college course, i. e., ready to enter the junior or third year of a good university. When and where did the American Medical Association ever take such a step? There was a time when physicians of inferior education seemed a necessity; the people needed physicians, whatever their qualifications. But does this condition exist today? Is not the country already overrun with doctors? One doctor for every 650 people! Or less, even, if all the side issues are included. Are we not, all of us, agreed that the brakes could safely be applied? Why is it not done? You ask the faculties of the medical colleges of the country. If they did not constitute a great number in the house of delegates, how easily the desired result could be reached. Something in this way: Resolved, that from and after the first day of July 1914 (about 1910, if not earlier, Rush Medical College and the Illinois board of health will be ready for the final jump) no society in affiliation with the American Medical Association shall be entitled to representation in its house of delegates, which accepts members who, as a preliminary to their entrance to the freshman course of the college from which they received their doctor's degree, did not possess a baccalaureate degree of a university recognized as an average institution conferring such degrees. This will come about surely, sooner or later, and will do much in weeding out material which now creeps into our colleges, and has of old, and which constitutes a large part of the profession, who not only do not know the

code of ethics of the profession, but often fail in observance of the decalogue.

Of course it goes without saying that the profession of medicine is as moral as the people at large, if not more so; but that will not satisfy the lover of his profession. Its membership should be composed of the very best element in human society. It is also said that the higher the education the worse the rogue; but it is equally true that the higher the education, the fewer the rascals. It seems a hopeless task, then, to expect much relief, if any, from the central organization. Luckily, President John Allan Wyeth, in his address at Saratoga Springs in 1902, has furnished us with a suggestion, which may help us out of our difficulties, when he says: "Calm reflection must convince any reasonable mind that one of the wisest steps the association ever took was when it made the county medical organizations the basis of membership in the national body." And so we read in by-laws, chapter II, section 1 of County Societies: "This society shall have general direction of the affairs of the medical profession of the county and its influence shall be constantly exerted to better the scientific, material and social condition of every physician." Then in chapter IV, section 2, Board of Censors: "This board * * * shall examine and report on the qualifications of applicants for membership, subjecting each applicant to such examination as it may deem necessary. It shall investigate charges preferred against a member and report its conclusions and recommendations to the society." And again in chapter I, section 7: "A member who is guilty of a criminal offense, or of gross misconduct, either as a physician or as a citizen, or who violates any of the provisions of this constitution and by-laws, shall be liable to censure, suspension or expulsion." Thus the county medical society has conferred on it sole power to say who shall or who shall not be a member thereof, and that means the opening or the shutting of the door to the state association and the American Medical Association. And the suspension or the expulsion from the county medical society likewise means exclusion from both the state and national bodies. Yes, it seems also to mean that expulsion from the county society inevitably means that such a person cannot be a teacher in a medical college, because, if made necessary for proper discipline, such county, or any county, or through them the state organization, and inevitably the national body, will say to such college: "You exclude from your teaching force the expelled member or your graduates will no longer be recognized by us." For if such conclusion were not tenable, then sooner or later the whole fabric of organization would fall to pieces. The fact is that the county society has the ballot just as the citizen possesses it, and both are equally culpable if they do not exercise their great power for their own good and the good of their organizations and for society at large.

Your society, the Saunders County Medical Society, by reason of its geographical position, between the great counties of Douglas and Lancaster, with the metropolis, Omaha, and the capital city, Lincoln, in their boundaries, will ever be called upon to suffer from this neighborhood, which necessarily breeds in all walks of life, in medicine also, people who of bitter necessity in the struggle for existence, or from innate cussedness will encroach on your borders and on your patience, and you cannot too soon adopt such rules and regulations as will govern your membership in the first place, and those who come to you, as neighbors, or as consultants, secondarily. Certainly no work that your board of censors could perform would redound to your blessing, and eventually to the whole profession, more than a set of liberal, broad-minded admonitions in the shape of "Thou shalt nots." To expect the profession to be immaculate is a holy desire; to deal with it, as though it were holy, is childish. Keep your faith in its future, but do unto it at present as you would it should do unto you.

And now a personal word. I am sincerely grateful, for your kindness in letting me preside over your deliberations the first year of our existence. We have not missed a meeting and I trust the record will be kept up and this society will become a beacon light to its members as well as to the kindred organizations of this state, which in their collective body, the State Medical Association, have had the greater share of my life's work and what of good it may have contained.

FRACTURES AND COMPLICATIONS, WITH HISTORY AND TREATMENT OF A CLINICAL CASE WHICH RESULTED IN DEATH.*

By G. A. LANGSTAFF, M. D.,

BLAIR, NEB.

It will be my effort to present something to you which will be practical and interesting, and if I fail to interest or benefit you I ask your leniency, hoping to do better in the future.

Special Complications.—The local complications that occur in connection with fractures are immediate or remote. The former depend upon the injury inflicted on surrounding structures at the time of the accident; the latter result from the changes that take place subsequently during the progress of the case.

Laceration.—Laceration of the soft tissue and extravasation of blood are so general that they can scarcely be called complications unless exceptionally severe.

Rupture of Arteries.—In compound fractures the hemorrhage must be checked by a tourniquet, the wound enlarged, all clots turned out and a thorough search made. Sometimes this is successful, but finding a torn vessel under conditions such as these is always a matter of the greatest difficulty. Ligature of the vessel higher up cannot be recommended; if the collateral is good, the bleeding continues; if it is not, gangrene sets in.

Simple Fractures.—In simple fractures the question turns upon the collateral circulation and the limitation of the extravasation. If the swelling is tense and diffuse so that the limb below is cold and pulseless, amputation must be performed at once before gangrene sets in. The only exception is where the surrounding structures are but little impaired and the

* Read before the Washington County Medical Society.

interruption to the circulation is due more to the tension than to the destruction of the collateral vessels. If, on the other hand, the circulation is not completely interrupted, if the limb still retains some warmth and sensation, there is some hope either that a traumatic aneurism will form or that, better still, the wound in the artery may close and the blood be quietly absorbed without further trouble. The limb should be raised, kept quiet and placed in as comfortable a position as possible; wrapped in cotton wool to maintain the temperature. No firm bandages or splints may be applied, merely something to protect the part against incautious movement; the best hope lies in perfect rest and gentle compression.

Rupture of Veins.—The symptoms, with the exception of the pulsation, are almost the same as those of ruptured artery and gangrene is even more likely to occur. If the limb is growing cold the only course is to lay the swelling open, turn out all the extravasated blood and try and secure the two ends as soon as possible, and, failing in this, amputate.

Injury to Nerves.—The symptoms presented by this complication vary according to whether the nerve is irritated or only compressed.

Tetanus.—Spasmodic contractions, hyperesthesia, and intense neuralgia are occasionally by the former; loss of power, wasting diminution of sensibility and constant pain until the nerve has undergone degeneration are met with in the latter.

Injury to Joints.—Extension of a fracture into a neighboring joint is always a grave complication even where the skin is unbroken. The synovial cavity is filled with blood.

Inflammation.—Inflammation in the course of a simple fracture is quite exceptional. Sometimes when the extravasation is very extensive the hematoma slowly suppurates as it does occasionally in contusion, or inflammation starts from the blebs that form on the surface of the skin.

Sloughing.—Sloughing of the skin and cellular tissue may be caused by the violence to which the part is subjected at the moment of the accident. All pressure must be removed so far as is consistent with safety; the position must be adjusted so that the circulation is unimpaired and putrefaction prevented. If the cause is removed and no fresh irritant allowed to appear, the sore that is left soon granulates.

Gangrene.—Traumatic may be local or spreading. In the former case it may arise from the actual crushing even where the fracture is a simple one, from thrombosis, rupture of the main vessels or tight bandaging; but whatever the reason, if an attempt has been made to save the limb and it is plainly becoming colder amputation should be performed at once. The most difficult cases are those which hang in the balance for a day or two, sometimes warmer, sometimes colder, before it is possible to be certain. Spreading traumatic gangrene may be the result solely from the defective nutrition, the vitality of the part being so low from renal disease, diabetes, cold exposure or other causes, that the structures perish even if they are only bruised.

Solid Edema.—Solid edema due to lymphatic venous obstruction is often present after fracture, especially compound ones in which there has been inflammation or sloughing of the cellular tissues. The nutrition of the whole limb suffers, it remains cold and hard, the skin is tightly bound down to the parts beneath, and ulcers are liable to form.

Muscular Atrophy.—Muscular atrophy is present in most cases of fracture. If it is merely the result of inactivity, recovery is generally rapid and easy; but sometimes when the limb has been severely crushed or when there has been much inflammation, the fibres are so matted together and the tendons so crippled by adhesions that the process is very tedious.

Ankylosis.—Stiffness of the joints is very common even when they have escaped direct injury. As a rule, the joint becomes stiff because passive motion is not resorted to sufficiently early; the capsule becomes rigid, the amount of synovia is deficient, the soft tissues aronnd grow hard and thick.

Having noted the complications of fractures I now take up the clinical case in question.

Anders Beck, age 27; married. At 8:30 on Monday, December 22, 1902, he received an injury to the right leg by a horse stepping on it, causing compound fracture of tibia and fibula at the middle of lower half. The inner border of the tibia punctured the skin, causing a smal wound; hemorrhage, slight. The force was applied to the outside of leg. No other apparent injury was received. The patient was holding up horse's hind foot when the caulk of horse's shoe became fast in patient's overalls; the weight of horse placing his foot on patient's leg caused the fracture; no injury to head or body was noticed or complained of. With the assistance of Dr. Stewart fracture was reduced under anesthesia and limb put up in coaptation splints, the wound being previously washed with bichloride solution, 1 to 2,000, and occlusive dressing applied. The patient required but a small amount of chloroform, which he took without any difficulty and soon recovered. Patient was then removed to his home, one and a half miles, in a comfortable sleigh and plenty of covering. In the evening the limb was put up in Bavarian splint of plaster of Paris and no unusual symptoms noticed.

Previous history: Has had good health; last October had an attack of la grippe. Has been subject to nose-bleed since five years of age and on several occasions would have to leave his meals. Bleeding would occur at night while in bed and asleep and would have to rise to check bleeding.

Present history: Did not complain of any trouble after limb was put in Bavarian splint; wound was small and looked well; some oozing of blood, which subsided gradually, circulation good. An opening was left in splint so that wound could be dressed and dressing changed every hour. After being put to bed at his home pulse was 60, temperature 101, respiration 18. Rested well all the first night and passed urine at 3 a. m., fair quantity and normal. Visited him the following morning and found him in a favorable condition. The slight swelling subsided and patient thought splint was slack. He complained that his sight was diminished, but I could see nothing wrong with his eyes.

Left patient at 11:15 a. m. He passed a good amount of urine at 11:30 a. m. A few minutes after handing vessel containing the urine to the nurse, he suddenly rolled his eyes upwards, his arms became rigid and contracted, throwing them wildly about, complete loss of consciousness. This occurred twenty-seven hours after the injury. On visiting the patient I found him unconscious, muscles of arms rigid, left more than right, muscles of lower jaw firm and with difficulty could pry open mouth, difficulty in swallowing, head inclined to the left side, pupils dilated, voided feces and urine unconsciously. What was the cause of this sudden change in the condition of the patient, who was resting quietly, taking a fair amount of nourishment, passing urine, no pain or disturbance of limb? No premonitory symptoms except dimness of eye-sight. At 7:45 p. m. pulse was 120, temperature 101½, respiration 32. A number of conditions will present themselves as might be the cause; tetanus, septic infection, meningitis, embolism, cerebral hemorrhage.

In Tetanus.—Period of incubation is from one to four weeks, shortest time on record four days. The mind is not affected.

Uremia.—The strong point in the diagnosis is that the coma is preceded by the convulsions. Puffy eyelids, swollen ankles, coma not profound, pupils normal or dilated but equal, low body heat, not rising even as the case lasts, are symptoms that belong to uremic coma. Yet there are cases of uremic coma with high temperature, especially when tested in the rectum. Unilateral convulsions or loss of power are indicative of cerebral mischief and tell against uremia. The urine was tested and found to be normal.

Septic Infection.—The general symptoms commence as a rule about eight to twelve hours after the injury with the most overpowering depression; headache is extremely severe. There may be a rigor of great intensity, but very seldom more than one. The temperature begins to rise at once, the pulse is small and feeble from the first, the respiration is hurried or shallow, and in a very short time delirium sets in and stupor and coma rapidly follow. The central nervous system from the first is entirely overcome. Sometimes there is a rash upon the skin not unlike that of scarlatina. The diagnosis from sapremia is practically impossible, except from the history of the case, although septic infection is more probable when there is a distinct incubation period. No other disease occurring under such conditions ever causes symptoms of such severity.

Meningitis.—The constitutional symptoms are merely those of acute pyrexia. There is rarely a rigor that is the signal for pyemia or suppuration, but the temperature rises rapidly until sometimes it attains an extraordinary height. The pulse becomes full and quick, bounding, the respiration hurried and shallow, the bowels confined and the appetite lost. The local ones on the other hand, those that depend on the organ involved, exhibit a greater variety. Headache is always present and usually is described as agonizing. At first there is general hyperesthesia, the least noise causes intolerable suffering, the eyes cannot face the light, the pupils are contracted to pin points and even the skin may be exceedingly tender. Vomiting and delirium are rarely absent, sometimes there is merely a certain amount of wandering at night but not infrequently there is a condition approaching that of a furious mania. Then by degrees, as the disorder of the cortex becomes greater, the abnormal state of excitement passes into a condition of insensibility, the pupils dilate, the eyes remain staring widely open, the breathing becomes stertorous, consciousness is lost and stupor and coma set in.

Acute Traumatic Meningitis.—It may begin within a day or two after the accident, or when it is due to gradual extension it may not make its appearance for a long time. As a rule, there is a rigor or shivering, the temperature rises at once and may become exceedingly high in the first few hours, the pulse becomes full and rapid, the respiration is shallow and hurried, vomiting is not infrequent and delirium and other signs of the most intense fever follow very soon. Reflex action is at first exaggerated; very soon it begins to fail and voluntary power is impaired almost from the first. There is the most intense pain down the back, often spreading around the trunk as the roots of the spinal nerves become involved, hyperesthesia is almost always present and sometimes it is general, so that the weight of the bed-clothes on any part of the body causes agony. The muscles of the back are kept perfectly rigid. As a rule, respiration soon begins to fail, owing to the cervical portion of the cord becoming involved, and severe cases may terminate fatally in this way within forty-eight hours. If the patient survives longer sloughing bed-sores, cystitis and nephritis are not uncommon.

Embolism.—Embolism is the impaction in some part of the blood stream of a substance which from its size or nature cannot be driven further. The substance itself is an embolus. Emboli are derived from many sources. A fragment of a thrombosis is one of the most common. An end may be bodily torn off especially if it projects through a side opening into the cavity of a larger vein or the whole clot may undergo decay and disintegration, so that a mass of soft debris is discharged into the circulation at once. Embolism may occur either in the systemic or the pulmonary arteries or in the portal vein, the embolus originating as a rule in the venous system or the heart and of course following the direction of the circulation. Wherever it originates it is swept along until it meets with some vessel too small for it to pass through. Usually this corresponds to the point of bifurcation. If soft and yielding like a recent clot it moulds itself to the interior, and if hard and rigid it becomes fixed and completes the obstruction by causing coagulation around. The immediate result is to stop the current through that branch. Instant death may of course ensue if one of the large branches of the pulmonary artery is blocked or the middle cerebral; in other cases, however, every attempt is made to keep up the full supply of blood through the collateral branches. If these are fairly abundant and healthy so that dilatation is possible no ill result ensues; there is a temporary blanching of the part, the pulse fails and the part feels cold and numb, but this soon passes off and

is followed by transient hyperemia in which all the vessels share. Later this general enlargement of the collateral supply gradually narrows itself down to one or two of the shortest and straightest routes and everything is restored to its natural condition. If on the other hand dilatation is impossible or as, for example, in the case of the retina, there is no collateral circulation, the part becomes starved out and dies. If it is in the interior of the body, it undergoes fatty degeneration; if it is on one of the extremities, dry gangrene. In certain organs (the lungs and kidneys in particular) what is known as infarction occurs. The collateral circulation is not sufficiently good to maintain the full blood pressure but yet is developed to a certain extent; the blood pours into the anemic area with sufficient strength to fill the capillaries but not sufficient to maintain its course. As a rule all the minute vessels become engorged. Stasis sets in, the walls of the capillaries perish, the red blood corpuscles pass through and fill all the interstices and practically at length the whole area is absolutely solid with blood forming what is known as a hemorrhagic infarct. The effect of an embolus, however, depends not only upon its size and the arrangement of the blood vessels but upon its nature. So long as it is absolutely unirritating, the inflammation it excites is merely sufficient to cause organization of the clot that forms around it and seal it to the side.

In ulcerative endocarditis, however, the vegetations that are detached from the valves are often so irritating that the walls of the arteries in which they are impacted become soft and yield before the blood pressure so that an aneurism is formed. In suppurative phlebitis when pyogenic micro-organisms have gained access to the interior of the clot and have caused it to break down into a puriform infective fluid the consequences are more serious still. Wherever the debris is carried it brings with it infective germs which find in the engorged and lifeless mass of tissue the soil that suits them best; as a result the whole affected area melts away at once into the most intensely infective pus and a true pyemic abscess is developed.

Cerebral Hemorrhage.—Intra-cranial. This may take place between the dura mater and the bone in the subdural or subarachnoid space, in the substance of the brain itself or in the cavity of the ventricles and it may occur rapidly when there is a large space in which it may collect, or when a large vessel is torn across; more often it takes place slowly and continues until either the tension and the coagulation are sufficient to close the vessels or fatal compression is induced. Hemorrhage between the dura mater and the bone may occur from injury to one of the venous sinuses but it is rarely of any surgical importance unless it is caused by the rupture of the middle meningeal artery or its anterior branch, then it gives rise to a series of symptoms which may be taken as the type of those of compression. Subdural hemorrhage is rarely met with by itself and cannot be distinguished from other forms. Nearly always it is secondary to cortical and subarachnoid extravasation and adds the element of gradually spreading compression to the other symptoms. The blood comes either from the vessels of the pia mater or cortex, the arachnoid being torn across, or from the large veins on the upper surface of the brain which sometimes give way just where they enter the superior longitudinal sinus. Subarachnoid hemorrhage is practically always associated with severe injury to the cortex and is secondary to it, often it extends into the subdural space as well. The blood of the arachnoid does not give way but pours down into the sulci and over the convolutions until it may reach the big subarachnoid space at the base of the brain. There are no symptoms which are peculiar to it. Cerebral hemorrhage when slight rarely admits of a diagnosis. There is little doubt that minute extravasations are present in all cases of concussion but as a rule they give rise to no special symptoms. When a diseased artery gives way under a sudden shock and the extravasation into one of the ventricles causes an apoplectic fit the symptoms are altogether general and there is no local indication of any kind.

Having described the symptoms of each disease,—tetanus, uremia, septic infection, meningitis, embolism, and cerebral hemorrhage,—I now sum up and differentiate in each. In tetanus the symptoms coming on so early as twenty-seven hours after the injury, patient unconscious as soon as sudden change took place, whereas in tetanus four days is the shortest period on record that the symptoms appear and the mind not being affected, would discard tetanus as the cause of the symptoms. In uremia the strong point in the diagnosis is that the coma is preceded by the convulsions. Patient had no coma but suddenly became unconscious. Puffy eyelids and swollen ankles which patient had not, body heat not rising even as the case lasted; patient had sudden rise of temperature which increased as case lasted. So uremia is discarded. In septic infection the symptoms commence as a rule about eight or twelve hours after the injury with most overpowering depression, headache extremely severe, pulse small and feeble from the first, the respiration hurried and shallow and in a very short time delirium sets in and stupor and coma rapidly follow. The patient's symptoms do not coincide with these conditions, so septic infection may be discarded.

Meningitis.—The prominent symptoms in this disease are headache, always present and usually described as agonizing; patient had no headache. There is a general hyperesthesia, the least noise causing intolerable suffering, the eyes cannot face the light, the pupils are contracted to pin points, and even the skin may be exceedingly tender. Vomiting and delirium are rarely absent. The patient had none of these symptoms, so meningitis may be discarded.

Traumatic Meningitis.—The symptoms are similar, to a great extent, to meningitis.

Embolism.—There is no history of embolism, and to produce these cerebral symptoms in the patient's history the clot, if it came from the wound, would have to pass through the heart and lungs before it could reach the brain, which would be impossible.

Cerebral Hemorrhage.—In the patient's history there was no injury to the head or any part of the body. The only premonitory symptoms was dimness

of sight. The sudden change came like a stroke. Patient had just passed urine, the symptoms resembled an apoplectic fit, shock, compression, irregular respiration, voided urine and feces involuntarily, difficulty in swallowing. One predisposing cause of hemorrhage would be the patient's former history of nose-bleed since five years old. The shock and exposure received at the time of the accident, the reaction which would necessarily set in afterwards, seem to be strong factors in favor of cerebral hemorrhage. If the hemorrhage is large, the symptoms are shock, compression, and general paralysis.

The case has been of great interest. Drs. Stewart, Lukens and Robinson saw the patient in consultation. I have not yet found in our text-books any report of these symptoms occurring in connection with compound fracture of limbs. In fracture of the skull, hemorrhage and compression necessarily follow. There was noticed in this case a short time before death, a discoloration of left temple about the size of the palm of the hand. From the previous and present history of the patient, together with the symptoms that followed I am of the opinion that a cerebral hemorrhage took place suddenly, a large vessel giving way. Where to locate the hemorrhage is difficult but it is evident that compression and inflammation followed. The patient was made as comfortable as possible, placed on a fracture bed with an attachment which I have made for raising and lowering the patient and was of great service to nurse in caring for the patient, giving great facilities in keeping patient clean when bowels are moving, changing the bedding without disturbing the fracture or annoying the patient.

Massachusetts Senate Refuses Antitoxin Grant.—The senate has refused to grant to the state board of health the $1,500 necessary to procure the antitoxin and vaccine virus which they are directed by last year's legislation to furnish free to the physicians of the state.

General Medicine.

Le Roy Crummer, M. D., Omaha, Neb., Department Editor.

Alcoholic Neuritis in Childhood.—At a recent meeting of the Vienna Society for Internal Medicine, Tappert presented a four-year-old girl with alcoholic neuritis. The symptoms began with a tendency for the child to tire out easily, which soon developed into complete inability to walk or stand. The arms also became weaker and some pains were felt which got worse on attempted motion. The examination revealed marked paresis of all four limbs, with ataxy and loss of the tendon-reflexes; also great sensitiveness of the nerve trunks and muscles. It turned out that the child had been drinking a half litre (more than a pint) of beer every day for six months. On total abstinence and the faradic current complete recovery occurred.—Gifford.

An Unusual Course of Death After Operation for Sinus Thrombosis.—Heine (Archiv für Ohrenheilkunde, LX, 312) gives a striking instance of the importance of minute details in operating for the cranial complications of ear disease. At the operation it was necessary to expose a considerable area of the dura. On the fourteenth day symptoms of meningitis appeared and death occurred fourteen days later. At the autopsy it was found that the infection had started from a small gangrenous area of dura to the outer surface of which there adhered a splinter of the internal table of the skull, one-half centimeter in diameter. This had been completely separated from the surrounding bone, but was attached to the dura by the sharp projections from the tabula vitrea, and if it had been removed in cleaning up at the end of the operation, there can be little doubt that the fatal result would have been avoided.—Gifford.

Hagen, of Nordhausen, recommends the use of atropin locally in incarcerated hernias. Atropin possesses power to stimulate peristalsis and at the same time its vaso-constrictor action causes a narrowing of the vessels of the mesentery. His procedure is as follows: After an unsuccessful attempt by taxis a careful injection of 1-200 grain of atropin is made in the narrowest portion of the hernial sac, being careful to avoid wounding the bowel. After one hour another attempt at taxis is made, which is generally successful; if not, procedure may be repeated a number of times. If there is no effect upon the condition of the hernia after several attempts, operation is immediately indicated; but if, as it happens in most of the cases, the tumor becomes softer, vomiting stops, and the pain becomes less, a careful expectant attitude is best. This has shown itself particularly valuable in old people in whom operative attack is not without danger.

Arnsberger holds that all circumscribed aneurisms are dependent upon the previous syphilis. All other etiological factors have a less importance. Alcohol can occasion fusiform dilation of the aorta.

Daremberg and Moriez (Revue de Medecine) state that there is no such thing as an intermittent or cyclic albuminuria, but that all cases of albuminuria are in the beginning intermittent. If a carefully regulated mixed diet is not sufficient to cause the disappearance of the albuminuria they institute a three or four weeks' treatment with a diet of fresh fish with the addition of two glasses daily of Vichy water. In addition regular exercise in the open air is a necessity.

Bourcart says the Loeffler bacillus can occur very exceptionally in the throats of healthy persons who have not recently had diphtheria. Even with persons who are in constant contact with diphtheria cases this is rare. In children this is somewhat more frequent (18 per cent.) than in adults. Indeed in physicians and nurses a positive result is a great rarity. In diphtheria cases which are treated with antitoxin the Loeffler bacillus disappears with the pseudo-membrane in 65 per cent. of the cases. It remains for a few days after the beginning of convalescence in 20 per cent., and for a longer time in 15 per cent. Those bacilli which remain assume an atypical form and are much less virulent than the typical forms.—Le Roy Crummer, Omaha.

Typhoid Fever.—The first cases of typhoid ever appearing in this vicinity seem to have occurred about August last in a family living in a tent,—new-comers. They did not come under my care and the cases seem not to have been recognized as typhoid. These children subsequently attended school where drinking cups in common were in use. Two weeks after school opened a case occurred coming under my care pronounced typhoid fever. Patient was young girl of fourteen. Her father had complained for a month previously, though not under treatment, and attributed his illness to a meal eaten at transient hotel table. The girl was treated by a preliminary calomel and soda purge followed by acetozone solution. Good recovery. Mild throughout, but quite typical. Boiling of dishes, disinfection of discharges and sanitation were well observed, and there was no spread to others though the family was large. During November and December following, cases occurred in two families which I did not see. At the railroad section-house there were two cases, one fatal, and also in a ranchman's family that had moved to town, one fatal case, neither coming under my care. This family then moved back to their ranch, eighteen miles from town, and I was called January 3, finding one case, aged 17, second week of illness. January 5, mother, aged 42, sister, aged 12, and on January 7, brother, aged 10, fell ill. All now recovered, or recovering. Incubation eight to twenty-three days places infection previous to January 3. No infections since; five of family escaping illness. A trained nurse, good sanitation, liquid foods, preliminary calomel and soda purge, followed by acetozone solution varied with "Woodbridge" alternating with salol tablets, reinforced at times by strychnia 1-30th, and stimulants as acceptable, was the treatment. Medicine, nursing, bathing, stimulating and feeding done easily, reasonably and no more than necessary. There was no scaring into cold baths; there was plenty of water to drink, cold water bags under neck and over stomach as required. Highest temperature 105.5° in case advanced before treated. No delirium, stupor, suppression or tympanites. Case of boy was very mild and others in proportion to earliness of treatment, abortive or mitigative. There were no microscopic, Diazo, or Widal tests used, but all clinical symptoms were present. Transients from Forts Niobrara and Robinson (lately from Cuba), east and west of here, or from Black Hills, may have left contagion on knives, forks, etc., at eating station, or in dust of passing trains, or one family may have brought it and distributed it at school. Typhoid cases occurred on Niobrara river thirty miles west previous season. Two families living right by the water came to town to attend school. They were ill, but not under my care, and one family's cases were among first here, but poorly observed, and no particulars obtainable. Typhoid is said to traverse thirty miles of river. The eldest girl on the ranch seemed to resist infection even during its incubation, being out on horseback and breathing air almost pure as the sea, where sailors resist so well and fall ill on coming into port. She was attacked (from patient's account) two weeks before I saw her and repeatedly got up again. Many of the cases seemed to show that typhoid can be checked in its onset by calomel and quinine, or even castor oil and turpentine, by the laity, and that pure air promotes resistance. To sum up: The invasion came from family in tent, from families on river, or from transients by rail stopping and passing through. First cases were from all three sources. As a high aim in treatment it is well to appreciate the remark of the late Dr. Pepper, made about 1892, that he had not lost a case of typhoid in ten years. —T. F. Campbell, Cody, Neb.

Surgery.

B. B. Davis, A. B., M. D., Omaha, Neb., Department Editor.

A Point in the Treatment of Surgical Cases.—In the after-treatment of surgical cases one of the disagreeable features which commonly arises, is the distress caused by the accumulation of gas in the intestines. To overcome this the writer has used a rectal tube (eight inches in length) which is introduced while the patient is on the table or immediately after being returned to bed. In thirteen consecutive abdominal cases there has been no distention or disagreeable sensations noted. The tube is left in position for eighteen to thirty-six hours, as occasion may demand, and in no case has it proven a source of irritation nor has the lumen become occluded by feces. In several cases, however, a considerable amount of gas has been heard to escape when the tube was first introduced, thus showing it is possible to avoid a great deal of pain for our patients and greatly add to their comfort during the first twelve to forty-eight hours.—Chas. A. Hull, M. D., Omaha.

A Procedure for the Artificial Filling of Bone Cavities.—Prof. G. Fantino and Dr. A. Valan (Archiv für Klinische Chirurgie, 1903) give the results of a long series of experiments in the filling of bone cavities at the City Hospital in Bergamo, Italy. They first show that in the heteroplastic method the greater the zoological difference of the animals used the more likely is failure to be met, as first pointed out by Ollier, has been confirmed. Preference is therefore given to autoplastic or homoplastic methods. They discuss the use of ivory, aluminum, nickeled steel, platinum, glass, celluloid, and other non-absorbable material only to condemn them because of the almost universal failure. They used sponge, gauze, cotton, silk, catgut and decalcified bone, and none of these substances were found to come up to the reasonable requirements for the filling of bone cavities. The living bone as used by Senn was better thought of, but they believe the activity of the bone-forming process, when living bone chips are used, depends on the lime salts and not the organic material. Their final conclusion is that calcified bone is of value in filling the bone cavity, the lime being directly appropriated in the forming of new bone. The clinical material on which these experiments have been carried out embraces forty cases with bone cavities resulting from sequestrotomies and bone tuberculosis. After curetting and irrigating the cavity, sterilization is ob-

tained by filling the cavity with a ten per cent. emulsion of iodoform in glycerine which is brought to the boiling point and there maintained for two minutes by plunging into it a red-hot thermo-cautery iron. The high temperature does no harm to the bony wall and the method has proven efficient.

When simple fragments of calcified bone were made use of to fill the cavity, if absolute asepsis was attained, the results were excellent. The objections to the use of bone fragments are first, they have no antiseptic action on the tissues; and, second, they leave spaces between them which fill with blood and, if any germs are present, the blood-clot acts as a culture medium and the effort fails.

To avoid the leaving of spaces a bone-ash was made by finely powdering the calcified bone. This was also a failure because the bone-ash is absorbed by the young granulation tissue before the osteogenetic process is established. Their next effort was to find some cement-like material, preferably antiseptic, with which the bone-ash can be mixed, which is so slowly penetrated by new tissue that absorption may go on only slowly and not until the new bone production is well advanced. After numerous experiments with various substances they found that a mixtnre of thymol, one part and iodoform, two parts, with which an equal quantity of bone-ash is mixed, served their purpose. The thymol and iodoform mixture remains fluid at 75° C. and quickly hardens at 60° C. Mixed with an equal amount of bone-ash an easily moulded pap is produced which becomes almost stony hard at the body temperature. It was found that this implanted mass is at the beginning surrounded and penetrated by threads of connective tissue in which new fragments of bone develop, which join directly with the implanted material, encapsule it and grow at its expense, making use of the inorganic bone material to form the new bone. In from three to eight months, depending on the size of the cavity to be filled, the implanted material is all absorbed, its place being occupied by newly-formed bone.

The authors lay special stress on the fact that the floor on which this implanted material is laid must be osteogenetic. If absolute asepsis is present the simple calcified bone chips serve an excellent purpose, and the external wound should be accurately closed by means of tier suture. If an aseptic condition is not positive, the bone-ash mixed with thymol and iodoform is the preferable material to employ, because in this way a continuous antiseptic action on the tissues is produced by the gradual breaking up of these compounds into their chemical elements.—B. B. DAVIS, Omaha.

Nervous and Mental Diseases.

J. M. AIKIN, M. D., Omaha, Neb., Department Editor.

OPTIC NEURITIS OF UNKNOWN ORIGIN.—Dr. Howell T. Pershing, in a paper before the American Neurological Association, May, 1903, published in the Journal of Nervous and Mental Diseases, January, 1904, presents the known causes of optical neuritis as organic intracranial disease, most frequently by tumor. In almost all the remaining cases the cause is a general infection or intoxication. After making due allowance for tumor, abscess or other organic brain lesion or infectious disease as a basis for the presence of optic neuritis in three cases upon which he was permitted to make extended observations, he concludes that suppurative middle-ear disease was the cause in two cases, while in the third case he could not form any definite opinion of the cause. He concludes by saying: "Even the supposition of an unknown toxic agent is not free from objection, for any symptoms other than the optic neuritis which might be attributed to intoxication were limited to about two days and could be otherwise accounted.—J. M. AIKIN, Omaha.

A PAPER on "Extirpation of Gasserian Ganglion for Neuralgia," before the New York Neurological Society on October 6, 1903, by Dr. William Hirsch, presents a woman who had been operated upon one year ago for the relief of trigeminal neuralgia by the removal of the Gasserian ganglion. Microscopical examination showed that the ganglion had been completely extirpated. The neuralgia had been completely relieved. There was no analgesia anywhere. Remark claimed that one result of paralysis of the trigeminal nerve was a pushing of the lower jaw over towards the affected side, associated with partial subluxation. This patient showed only a slight deviation. In this woman the perception of a sweet taste was somewhat uncertain, that for sour was lost, and the taste for bitter was perverted. The electrical reaction of the muscles on the affected side was perfectly normal, but the effect of the current as regards taste had not been noted.—(Journal of Nervous and Mental Diseases, Jan., 1904.)—J. M. AIKIN, Omaha.

TABETIC SYMPTOMS IN A GIRL OF 17, PRESENTING FROM INFANCY A BRACHIAL MONOPLEGIA, PROBABLY OF POLIOMYELITIC ORIGIN.—This paper was read by Dr. A. Gordon, October 27, 1903, before the Philadelphia Neurological Society. The patient, a girl, now 17 years of age, at the age of 18 months had an attack of fever and vomiting, followed by paralysis of the right arm. She remained well until three years ago, when the present trouble began with weakness in the left leg, with numbness in the thigh and leg, and especially in the sole of the foot. There was a continuous ache in the left leg and some lancinating pain. A year ago the right leg became affected. There was also girdle-pain, some disturbance of micturition and weakness of vision. The right arm is wasted and paralyzed. The right lower extremity is apparently normal in size, the left thigh is reduced. There is diminished response to the faradic and galvanic currents. Station is normal. The knee-jerk is lost on the left, and very much diminished on the right side. Objective sensation is diminished on the left side. Subjective sensation is more marked. There is marked weakness and numbness of the left leg, a sensation of tightness in the left lumbar region, imperative micturition and unequal pupils. The speaker expressed the opinion that this was probably a case of juvenile tabes.

Dr. Charles K. Mills considered the view well taken that this was a case of juvenile tabes with hereditary syphilis as its origin. He did not see any connection between the poliomyelitis and the juvenile tabes. They seemed to be a chance concurrence in the same patient. It may be that the etiology of the two conditions was the same.

Dr. A. Gordon said that he could not state positively that the poliomyelitis and the tabes bore the relation to each other of cause and effect. He reported his case as a curious example of these two diseases occurring in the same patient. Progressive muscular atrophy and amyotrophic lateral sclerosis have been reported as following acute poliomyelitis of infancy, but tabes has not yet been observed following this disease.—(Journal of Nervous and Mental Diseases, Jan., 1904.)—J. M. Aikin, Omaha.

Gynecology.

W. O. Henry, M. D., Omaha, Neb., Department Editor.

From the Journal of the American Medical Association of January 16 are the following. The writer cannot agree with Deaver in ever opening the abdomen for acute pelvic abscess; but belives all such should be opened through the vagina:

"Pelvic Infection.—Deaver notes the progress of postpartum uterine infection, and protests against the practice of aspiration through the vagina in cases of pelvic abscess, as the needle may enter the intestine. A better procedure is to open freely the cul-de-sac by an incision through the posterior vaginal vault. Where the collection is so placed that it can not be reached by such incisions he keeps the case under the closest observation with careful feeding and the avoidance of purgation. If the collection is in the upper part of the broad ligament and it is doubtful whether it can be reached by incision above Poupart's ligament, he makes an incision in the median line, just above the upper margin of the mass and carefully inspects its relation to the abdominal wall and viscera, and then packs with gauze above and to each side and evacuates without danger of soiling the peritoneal cavity, mopping out with iodoform gauze, exercising care not to destroy any adhesions. Where the infection has passed into the tube, forming a pyosalpinx or tubo-ovarian abscess, he always operates by the abdominal route, tying off the ovarian vessels as close to the pelvic wall as possible, and rapidly excising the tube and ovary with scissors, following the incision right into the horns of the uterus, and closing the resulting wound with continuous suture. He drains with gauze placed along the line of suture. In still another class of cases where the infection appears as a phlebitis of the uterine sinuses and veins of the broad ligament, with multiple abscesses and acute peritonitis, pronounced constitutional symptoms, diarrhea, etc., the question of hysterectomy presents itself. In most of these cases total hysterectomy is to be preferred. Early operation can save the patient in some of these highly-virulent and rapidly-fatal forms of septic peritonitis which are similar to the fulminating forms of appendicitis, and surgery must be performed. In infection from gonorrhea and dermoid cysts and from interligamentary and ovarian cysts, he is in the habit of performing supravaginal hysterectomy. He considers it in badly infectious cases with dense adhesions the ideal operation, since it thoroughly removes all the diseased condition. The floor of the pelvis is left with a serous covering by neatly stitching the apposed serous surfaces together.

"Gonorrhea in Women.—Stoner holds that gonorrhea, while a persistent and invading infection, is in the majority of cases overcome by the antitoxic elements of the cells, and may be called a self-limited disease. During the early stages cleanliness and rest are best. The trouble is generally over-treated. If the patient can be placed in bed and given a liquid diet and the infected parts kept thoroughly cleansed by sterile water, the results will be better than those obtained by some of the more active measures often employed. This use of sterile water does not imply the vaginal douche, which he thinks in many cases helps to spread the infection. During the first few days no further treatment is necessary except rendering the urine neutral and less irritating. After the second week a 2 to 4 per cent. solution of protargol or 15 per cent. of argyrol may be instilled into the urethra and also used in the uterine cavity. Curettage of the uterus is not advisable in the acute stages when the tubes and ovaries are infected. In the second stage methylene blue or urotropin may be used, and a plain diet prescribed, consisting largely of milk. The patient should rest absolutely, or at least avoid hard manual labor during the first week or ten days. Should the infection extend to the uterus the tubes are almost sure to be involved. If salpingitis develops, rest in bed becomes imperative. Frequent hot douches, ice bags or turpentine stupes should be utilized to control the pain. Much must be left to nature, but she is frequently unable to cope successfully with the infection until the peritoneum is reached and an exudate thrown out which, for the time being, prevents further inroads. Then the intervention of the surgeon and removal of the diseased organ is called for."—W. O. Henry, Omaha.

From the January number of the American Journal of Obstetrics and Diseases of Women I take the following extracts, all of which are worthy of note, but to the writer, the item concerning "Pelvic Disease in the Female Insane" is of special significance, because it so fully corroborates the views which he has been emphasizing for several years past:

"Conservative Treatment of Lesions of the Uterine Appendages.—George Granville Bantock (Lancet, July 25) finds that in the course of an ovariotomy it is true conservative surgery to remove the second ovary if it shows palpable disease. In cases of ectopic gestation or of salpingitis, either acute or chronic, it is advisable in the great majority of cases, if not in all, to do the double operation. The practice of ignipuncture or partial resection of a suspected ovary is not founded on specific data. It is not conservative surgery to leave

an ovary in cases of complete hysterectomy. The operation of salpingostomy does not appear to Bantock to have any claim to be regarded as worthy of acceptance.

"Buried Unabsorbable Ligatures.—C. Hamilton Whiteford (Br. Med. Jour., July 25) condemns the use of unabsorbable ligatures. Catgut hardened by chemical reagents answers the purpose because after a few weeks it is disintegrated and as a definite body ceases to exist. The unabsorbable ligature must always be a foreign body which, as soon as it becomes infected, will cause suppuration. The soft tissues of the human body are unsuited to act as a cemetery for pieces of silk and metal.

"Intestinal Resection.—James H. Dunn (Jour. A. M. A., May 30) is of the opinion that suture is the most indispensable and generally applicable method of anastomosis in intestinal resection. For the end-to-end union of segments of normal small intestines, or the end-to-side anastomosis the Murphy button is excellent. Pathologic changes in the small intestine or its mesentery, which renders the perfect application of the button difficult, or such as would probably disturb the course of healing, should be united by suture. The simplest method compatible with good work should be used.

"Condition of the Endometrium in Cases of Uterine Myomata.—Thomas S. Cullen (Jour. A. M. A., Aug. 8) believes we can lay down the general rule that where the Fallopian tubes are normal and where no sloughing submucous myoma is present, that the uterine mucosa will be perfectly normal or show simple mechanical changes. The import to the surgeon is that where such favorable conditions are present he can do a myomectomy, opening, if necessary, a large part of the uterine cavity with little danger of infection. If the tubes are adherent or a sloughing submucous myomata be present complete removal of the uterus is indicated.

"Pelvic Disease in the Female Insane.—Ernest A. Hall (Northwest Med., September) believes that the percentage of pelvic disease among female insane is greater than is supposed. In a certain number of cases the removal of the diseased tissues is followed by restoration of the mental health. He is convinced that pelvic disease in the insane should be treated and that insanity is no excuse for the neglect of any physical abnormality. He recommends that a competent gynecologist be associated with all state hospitals for the insane.

"Pelvic Exudations.—In twenty-six cases of parametritis treated by E. S. Carmichael (Jour. Obst. and Gyn., Br. Emp., September) 80 per cent. were due to childbirth and the remaining cases resulted from surgical operation. The exudations were most common in the lateral parametria, more especially the left, but were liable to spread to and involve the other parametria, showing no tendency to limitations along certain lines, as some anatomical observations might lead us to suppose. The majority of cases when admitted into the hospital no longer suffered from fever, and that the presence or absence of this symptom is not a definite indication of the appearance of suppuration. In leucocytosis there is a much more reliable means of diagnosing the presence of pus, and that where leucocytes steadily increase on repeated examination, and especially when they reach the number of 20,000 per cm., or over, surgical interference is justifiable. The majority of pelvic exudations cure by absorption rather than by suppuration. The most frequent cause of suppuration is the streptococcus pyogenes. The hot air treatment has proved a very valuable addition to the therapeutics of this condition, more especially in large or very chronic exudations, or in those patients where pain and discomfort result from cicatrices and thickenings in the parametria, the remains of former exudations. The chief contraindications to this treatment are fever, menstruation and heart disease."—W. O. HENRY, Omaha.

Dermatology and Genito-Urinary Diseases.

E. J. ANGLE, A. M., M. D., Lincoln, Neb., Department Editor.

THE STAMPING TEST IN THE DIAGNOSIS OF RENAL CALCULUS.—Lucas (Medical Press and Circular, April 29, 1903), has recently invented a new test which sometimes gives the most remarkable results as an aid in the diagnosis of stone in the kidney. The patient supports himself by resting one hand on some firm object, then is made to flex the thigh on the affected side as high as possible. This causes the strongly contracted belly of the psoas muscle to press the kidney forward and outward. Next the patient brings the limb suddenly down, stamping the heel firmly on the ground. The kidney in this way suddenly loses its muscular support and is caught, as it were, unawares, whilst the jar carried through the pelvis and spine is communicated to it. A sudden acute pain is commonly caused by this maneuver when a calculus is present.—E. J. ANGLE, Lincoln.

NOTE ON A RAPID METHOD OF DIAGNOSIS IN LEPROSY.—(Francis J. Shepherd, M. D., of Montreal, The Journal of Cutaneous Diseases, Oct., 1903.)—The patient, a Chinese laundryman, aged 19, was admitted into the Montreal General Hospital April 17, 1902. He left China two years ago and has lived in Montreal ever since. Until September, 1901, was quite well. At this time there was redness and thickening of the skin on the forehead. This was soon followed by erythematous patches on the arms. This eruption was very itchy; was much worse in warm weather and cold seemed to improve it. From thence it extended over the body.

The patient is a well-made young man, of fair intelligence. On the forehead are seen reddened areas of thickened skin from the size of a 20-cent piece to a 50-cent piece. Some of these patches are fused together; there are also similar patches on the face, on cheeks and temples. These patches are not painful, but are itchy at times. On the arms, especially on the exterior surfaces of the elbows, are round and oval areas, covered with small, whitish scales. The scales are more at the margins of these patches, the center

being of smoother appearance and brownish yellow in color. These areas are distinctly anesthetic, some more so than others. Similar patches are seen on the trunk and legs, but these are not so numerous as on the arms. The patches are raised above the surrounding skin and are all covered with branny scales of a yellow-brown color. They are especially well marked on the buttocks, where they have somewhat the appearance of an old psoriasis.

Both external jugular veins are easily felt, and seem to have much thickened walls, which make them feel like cords. There is no tenderness on pressure. The glands in the posterior cervical triangle behind the sterno-mastoid are much enlarged. The inguinal and epitrochlear glands are increased in size. The hands are perfectly free from nodules and are apparently normal.

Both ulnar nerves behind the elbow are distinctly thickened and nodular, especially on the left side. The musculo-spiral nerve is also slightly enlarged. There is also some enlargement of the external popliteal nerves at the knee joints.

In order to make the diagnosis sure Shepherd cut down and removed a portion of one of the thickened ulnar nerves. The removed nodule was stained and under the miscroscope revealed numbers of bacilli of leprosy, which of course established the diagnosis beyond cavil.—E. J. Angle, Lincoln.

Cutaneous Actinomycosis of the Finger.—(A. Sichard, Abst. in British Journal of Dermatology, Nov., 1903.)—In this paper the author gives an account of a case of actinomycosis of the finger in a woman, aged 39 years, who worked in the fields and had the care of cattle. She was healthy and robust, and there was no antecedent syphilitic or tuberculous history.

On August 25, 1902, while collecting the sheaves of wheat to tie them into bundles, she experienced a sharp pain in her left index finger. A spike of corn happened to cut the skin of the metacarpo-phalangeal groove for about a centimetre and a half. The cut was very clean, quite superficial, and was only followed by a very trifling flow of blood. The patient did not take any further notice of this little accident. She worked as usual the following day without feeling any pain or abnormal sensation. The wound had cicatrized by the next day.

Eight days after, however, on getting up in the morning, she noticed a painful sensation in the region of the left index finger, which rapidly became edematous. The edema increased the day following, and involved the extremity of the finger and the palm of the hand. The pain became very acute, reaching its height in forty-eight hours. Then some vesicles appeared around the old cicatrix, and the skin at this level became red and hot. There was no lymphangitis of the arm, and no axillary adenopathy. A doctor, called in fifteen days after the cut, eight days from the beginning of the painful phenomena, noted the formation of an abscess and made an incision, from which a little pus and some blood escaped. Some days afterwards a second incision was thought necessary, and gave rise to the passage of a more appreciable quantity of pus. The following week a second abscess formed a little in front of the first, on the second phalanx of the index finger. After some time a third focus came to light in the cleft separating the index from the middle finger. The suppuration of the three foci persisted, and fearing that the finger would have to be amputated, the patient came to the hospital on October 14, 1902.

On removing the dressing three sores were displayed. They were deep, sanious at the base, grayish, sloughed in parts, and crateriform at the edges. Pressure gave rise to small drops of pus. In the second focus the ulceration was deeper, the aponeuroses of the muscles were destroyed, and the underlying bare bone could be felt with a probe. A radiogram showed well marked periostitis and the exfoliation of a small sequestrum. In the pus from one of the foci it was possible to obtain some little yellow granules, but they were very few in number.

The lesions of cutaneous actinomycosis have been described as being either nodular or ulcerative, the ulcerative always succeeding the nodular lesions. The author's case does not agree, from the clinical point of view, with this description. The ulceration directly followed some vesicles, and from the first, although open to the exterior, it took on a most severe form, with rapid extension to the deep parts, destroying muscles and aponeuroses and affecting the periosteal and bony tissue.

In considering whether the local gravity of the mycotic process should be attributed to its microbic associations, certain writers have contended that the parasite has only a chance of proliferation when it is in contact with certain saprophytes of the integument. According to this view the rapid destruction is owing to the activity of the symbiosis. If, however, one considers the soil and certain individual susceptibilities to the organism, the possibility of different modes of infection can be understood. In the cases with a rapid and grave course, even more than in the visceral localizations, the employment of the iodine compounds, in external applications and taken internally, exercises a favorable influence upon the evolution of the disease, and may be followed by lasting healing.—E. J. Angle, Lincoln.

Society Proceedings.

The next meeting of the Medical Society of the Missouri Valley will be held at Lincoln, Nebraska, March 24 and 25, 1904. A new constitution and by-laws will be presented at this meeting.

Chas. Wood Fassett, M. D., Secretary.

The Hall County Medical Society held its regular meeting at Grand Island, Neb., January 12. The officers elected for the present year were Dr. Hage, of Grand Island, president; Dr. Stone, of Doniphan, vice-president; Dr. Horton, of Grand Island, secretary-treasurer; Dr. Roeder, Grand Island, member board of censors for three years; Dr. Kelly, of Alda, member

of board of public health for three years. An interesting and instructive paper, entitled "Prophylaxis of Typhoid Fever," was read to the society by Dr. Roeder. After a general discussion of the subject the society adjourned until its next regular meeting, April 6, 1904.

C. J. HORTON, Secretary.

ON January 26 the Fillmore County Medical Society met at Geneva, Neb., and elected the following officers for the year 1904. President, J. W. Archard; vice president, A. G. McGrew; secretary-treasurer, C. F. Morsman; delegate, J. W. Archard. Dr. Archard read a very interesting paper upon the "Treatment of Typhoid Fever." After the regular meeting the doctors and their wives attended a banquet given by the society. Toasts were responded to as follows: Medical Organization, Dr. Woods; Our Society, Dr. Morsman; Quacks, Dr. Bixby. The society is in an excellent condition and is doing good work.

C. F. MORSMAN, Secretary.

THE annual meeting of the Omaha and Douglas County Medical Society was held January 13, at the Commercial Club. An elaborate dinner was enjoyed, after which toasts were responded to as follows: "The Medical Profession and Temperance," Dr. B. F. Crummer; "Medicine in the South and West," Dr. C. F. Richardson; "The Sorrows and Joys of a Medical Man," Dr. C. M. Schindel; "The Physician as a Citizen," Dr. W. O. Henry; "What I Know About Surgery," Dr. A. F. Jonas. The annual election resulted: Dr. Hamilton, president; Dr. J. C. Moore, vice-president; Dr. J. M. Aikin, secretary; Dr. Langfelt, treasurer; Drs. B. F. Crummer, A. B. Somers and S. B. Spaulding, censors. New members elected: E. A. Van Fleet and C. C. Morrison, Omaha; M. V. Hall, Bennington, and Mrs. Ralston, South Omaha.

THE next meeting of the Pawnee County Medical Society will be held at Lewiston, Neb., Monday, March 7. It is to be an open meeting, to which the public are invited. The following is the program: The Public and the Doctor, Rev. Collinson, Lewiston; The Doctor and the Public, Dr. W. H. Wilson, Table Rock; The Diet of the Sick and the Care of the Sick-Room, Dr. A. B. Anderson, Pawnee City; discussion, opened by Dr. J. D. Reynish, Burchard; What Must and Must Not Be Done in Surgical Cases, Dr. J. W. Bullard, Pawnee City; discussion, opened by Dr. F. W. Plehn, Burchard; The Benefit of Calling Early Consultation in Critical Cases, Dr. Brevoort, Du Bois; discussion, opened by Dr. H. L. Finley, Pawnee City; The Doctor's Bill, Is He Worthy of His Hire? Dr. McCrae, Table Rock. Discussion opened by Dr. Hollister, Steinauer. The meeting will open promptly at 2 o'clock p. m.

THE annual meeting of the Saunders County Medical Society convened in the council chamber at Wahoo, January 14, at 7 p. m. After the regular order of business the retiring president gave his address on "Medical Ethics and Profession Morality," following which came the election of officers. There was a determined effort to re-elect President von Mansfelde, but he gracefully declined that the younger members might have the honor. Dr. J. P. Percival, of Prague, was elected to the office. Vice-president, Frank Tornholm, M. D., of Wahoo; secretary, Mary A. Quincy, M. D., Ashland, re-elected; treasurer, J. G. Smith, M. D., Wahoo, re-elected; censor, for three years, W. J. Pinkerton, M. D., of Mead. One of the many pleasant features of the meeting was the attendance of a goodly number of the physicians' wives. The officers have had the hearty co-operation of the membership and the year has been a successful one. After the election of officers Dr. J. P. Percival read his paper, "Diphtheria," which was very well received and discussed.

MARY A. QUINCY, Secretary.

THE Dawson County Medical Society held its second annual meeting in the office of Dr. W. J. Birkofer at Gothenburg, Neb., on January 18, at which time the following officers were elected for the year 1904: President, Dr. J. H. Fochtman, Cozad; vice-president, Dr. F. S. Dunham, Cozad; secretary-treasurer, Dr. P. E. Plumb, Gothenburg; censor, three years, Dr. E. O. Boardman, Overton; delegate to state society, Dr. P. E. Plumb, with Dr. B. B. Baker of Lexington, alternate. About two hours' time was used in discussing the various diseases most prevalent in our county at this time of the year, together with the best and most approved methods of treating them. Opinions and ideas were freely exchanged with the utmost interest to all present as well as probable benefit to the many patients whose ills were under discussion. Dr. J. H. Baylan, of Eddyville, was elected to membership in the society, which now includes every physician in the county. The next regular meeting will be held at Lexington on the first Friday in April, 1904.

J. H. FOCHTMAN, President. P. E. PLUMB, Secy.-Treas.

STATISTICS OF TUBERCULOSIS.—The statistics of tuberculosis prepared for the exposition held in Baltimore, Md., January 25 to 31 show some interesting and startling facts. The death-rate from tuberculosis per 10,000 of the population is 20 for whites and 40 for the colored race in Baltimore, and in the rest of the state 12 for whites and 29 for colored. One in every 10 deaths among the whites is due to consumption, and one in every 6 or 7 among the colored is due to the same cause. The following is the order of mortality from tuberculosis: District of Columbia, 30.52 per 10,000 population; Rhode Island, 19.53; New York, 19.41; Massachusetts, 18.62; New Jersey, 18.01; Maryland, 16.94; Connecticut, 16.83; Maine, 16.49; Vermont, 15.25; New Hampshire, 15.23. The exposition was opened with a public meeting, January 25, and addresses were made by the governor, late governor, mayor, secretary of the state board of health, and president of the commission. Mr. Frederick Hoffman, secretary of the Prudential Life Insurance Company of Newark, N. J., also spoke on "Statistical Laws of Tuberculosis." Public meetings were held daily at 5 p. m.

NO REVIEW

of therapeutic progress would be complete without a reference to the unique value of

GRAY'S Glycerine TONIC Comp.

in malnutrition, anæmia, respiratory disorders, nervous exhaustion, general debility.

THE PURDUE FREDERICK COMPANY,
No. 15 Murray Street, New York.

1 to 50 1 to 50 1 to 50

One Part in Fifty

Germicidal

Prof. W. M. GRAY, Army Medical Museum, Washington, D. C., by a series of Experiments with inoculated beef peptone demonstrated that

TYREE'S ANTISEPTIC POWDER

is germicidal up to one part in fifty of water. Thus it is a superior Germicide and Disinfectant as well as an Antiseptic in economic proportions—hence its general utility and wide spread popularity.

Always insist upon getting original packages. Only the genuine Tyree's Powder reliable.

Literature and trial sample free.

Half-pound package postpaid, 80 cents, from prescription Druggist or direct.

J. S. TYREE, Chemist
WASHINGTON, D. C.

1 to 50 1 to 50 1 to 50

When Food Will Not Stay Down

put the patient on Colden's Liquid Beef Tonic which can be associated with any specific medication that may be indicated. It revitalizes the appetite, digestion and nutrition. The patient will take nourishment with relish and avidity and it will stay down.

In profound inanition specify "Ext. carnis fl. Comp. (Colden)" and you will be exceedingly gratified.

Literature mailed to physicians on request.

THE CHARLES N. CRITTENTON CO.
Sole Agents for the United States,
115-117 FULTON STREET, NEW YORK.

REMARKS ON GLYCO-THYMOLINE.

By W. R. D Blackwood, M. D., Philadelphia, Pa.

For many years past this preparation has been one of my mainstays in diseases of the mucous membranes, and it has held its place despite the trials of many other agents warranted to supplant it by the advocates who decried Glyco-Thymoline when I spoke of its virtues. Space is now getting too valuable to waste with long detailed descriptions of separate cases, and anyhow I never did write in that manner—I think general remarks about agents is the better way, and we need this more than stories of symptoms and temperatures, with daily alterations. No class of maladies is more troublesome than disorders of the mucous membranes, and none more difficult to eradicate thoroughly, and we have been put to our wits' end many times for remedial agents in such cases. The local treatment of catarrhs is frequently disappointing, and none more so than that prevalent one—post-nasal catarrh. Unless we can get an alterative condition established little good is done, and nothing has been of greater service to me than Glyco-Thymoline, locally and internally, in several hundreds of long-standing and severe cases of this intractable and common affliction. I have come to regard this preparation as a standard and almost routine remedy. I seldom care for a post-nasal trouble without prescribing it at the outset, and if I don't it is not long before it comes into use. It is just alkaline enough; just so as to the dialysis (the action locally with exactly the right amount of fluid excretion through the diseased membrane); just enough astringent without drying the parts; and just the right thing in the direct line of reparative work—it sets up tissue building soon after the membrane gets somewhere near its right shape. Many things are employed in catarrh, but I firmly believe that if I was confined to one agent only, that would be Glyco-Thymoline. For years I used the so-called antiseptic tablets of boric acid, salt, glycerin, etc., and with good results, but for a long time past this is thrown aside and the Glyco-Thymoline takes its place. I use it in about half-strength with a "Bermingham" douche, and from twice to four times daily. With this, in bad cases, I give it internally, adding to it, or giving separately, mercuric bichloride, and if done separately the menstruum is compound syrup of stillingia. In presumed syphilitic persons I always do this.

In gastritis, chronic enteritis, vaginitis, gonorrhea, and in recurring attacks of what too many physicians deem appendicitis, I use this agent freely, and always with good results. As a local preparation to foul ulcers and especially to hemorrhoids I think this preparation is very good. In the nasty leg ulcers which now and then defy all remedies Glyco-Thymoline does wonders—it can't do harm any time, and I am almost persuaded to give it in all instances. In bronchitis and asthma it is fine; in spasmodic croup it fills the bill nicely; it does well in venereal disorders locally, and in balanitis it stops the trouble at once.

ACUTE RHEUMATISM.

Tongaline .....8 ozs.

M. Sig.—A teaspoonful four or five times a day until pain is relieved. Then a teaspoonful three times a day.

CAUTION!

Sander & Sons' EUCALYPTOL (Eucalypti Extract)

We received quite recently the following communication from Dr W. H. Mayfield, Louisville, Ky. He says: "I have been using Eucalyptus, depending upon our drug stores, which have been furnishing me the commercial article, which is of uncertain strength, and disappoints."

To guard the high reputation our product has acquired all over the civilized globe, through the most scrupulous attention to all the details in the process of production, we repeat here once more and state again: **"That we are the sole manufacturers of Eucalyptus Essence who employ exclusively the leaves of the plant in gaining the article known as 'Sander & Sons' Eucalyptol' (Eucalypti Extract)."** In consequence it is impossible to obtain "Eucalyptol proper" (the essence of the leaves) from any other source, or the results the physician expects from any other manufacture. The application of Eucalyptol proper is so positive and distinct in results that no doubt must be entertained as to ultimate success. And if, nevertheless, disappointments be experienced, they rest with spurious articles supplied the physician in place of our product. This forms ample proof how imperative it is **"That the physician in prescribing specifies our product and insist upon receiving it."**

Our agents, Messrs. Meyer Bros. Drug Co., of St. Louis, Mo., have consented to fill, postage prepaid, orders for one original package (one ounce) on receipt of One Dollar. We beg to order from them. One test will at once convince and serve as safeguard. The difference is too striking and allows of no mistake.

Samples and literature of Sander & Sons' Eucalyptol (Eucalypti Extract) gratis, through Meyer Bros. Drug Co., St. Louis, Mo., Agents.

Sander & Sons, Bendigo, Australia

Practical Gynecology

A PRACTICAL BOOK FOR THE PHYSICIAN IN GENERAL PRACTICE

By W. O. HENRY

Professor of Gynecology in the Creighton Medical College, Omaha

CONTENTS BY CHAPTERS

I. Definitions and General Remarks.
II. Etiology of Female Diseases and Names of Parts Involved.
III. Mammary Glands.
IV. Vulva, Perineum, and Anus.
V. Vagina.
VI. Uterus.
VII. Fallopian Tubes.
VIII. Ovaries.
IX. Menstrual Disorders.
X. Sepsis Following Abortions or Labor.
XI. Pelvic Peritonitis.
XII. Leucorrhea.
XIII. Extrauterine Pregnancy.
XIV. General Diseases.
XV. Cystitis.
XVI. Operations.

Sent carriage prepaid on receipt of Two Dollars, or the book will be sent FREE for examination.

Address

THE REVIEW PRESS

Lincoln, Nebraska

Now Ready **Second Edition**

DR. MASON'S BOOK:

THE

Office Treatment

OF

Rectal Diseases

Enlarged, more freely illustrated, printed on better paper, improved in every way. New chapters on Rectal Cancer, Local Anesthesia, and Reflexes from Rectal Disease.

SENT POSTPAID ON RECEIPT OF PRICE. $1.50

THE REVIEW PRESS

Lincoln, Nebraska

Whooping-Cough Croup

A method which immediately palliates the attendant paroxysms, inhibits injurious sequelæ, and, with attention to a strengthening diet, brings the case to an early termination, with a minimum of internal medication, is worthy of trial.

Vaporized Cresolene has been used successfully for spasmodic coughs for more than twenty years.

Literature on request.

Vapo-Cresolene Co.

180 Fulton St., New York.

RELIABLE AND TRUSTWORTHY.

T. R. Dice, M. D., Utica, Mo., says: "Those unfortunates suffering from ailments in the genito-urinary tract and nervous system are placed under many obligations to you for your excellent preparation. Especially those suffering from prostatic troubles and cystitis. Your Satyria is reliable and trustworthy and will give satisfactory results when prescribed for ailments of the genito-urinary tract."

SANMETTO INCOMPARABLE WITH ANY OTHER KNOWN REMEDY FOR GENITO-URINARY DISEASES.

Sanmetto is not new to me. The fact is, I have prescribed many gallons of it in the past eight years. I have never taken a dose of it myself, but suddenly feeling a need for it, I have ordered a bottle of it to take myself. Now, as to the value of Sanmetto, it has never failed to produce beneficial results in my hands, and as a tonic and vitalizer to the genito-urinary organs it is not only unequaled, but incomparably better than any other known remedy.

Harrisburg, Ill. J. W. MITCHELL, M. D.

CONCLUSIVE EVIDENCE.

In these days, wnere there are so many nostrums forced upon the medical profession, the manufacturers of legitimate products, such as Neurosine and others, are not surprised at physicians being somewhat skeptical, more especially when they know the method of a certain class of chemical houses securing puffs and commendations of which the pages of so-called medical journals are loaded down with what purport to be commendations. The most conclusive evidence to the doctor of the efficiency of a product is to try it for himself. Should he have doubts of Neurosine being composed of effective drugs, we suggest that he will himself be greatly relieved from his many pains and aches and restless nights by taking a teaspoonful in a glass of water just before retiring. The refreshing sleep that he will realize, will be conclusive evidence to him that there can be no detrimental after-effects from the use of Neurosine. Neurosine is the most powerful neurotic, anodyne and hypnotic obtainable, and contains no opium, morphine, chloral or other deleterious drugs.

The Family Laxative

THE ideal safe family laxative, known as "SYRUP OF FIGS," is a product of the California Fig Syrup Co., and derives its laxative principles from senna, made pleasant to the taste, and more acceptable to the stomach, by being combined with pleasant aromatic syrups and the juice of figs. It is recommended by many of the most eminent physicians, and used by millions of families with entire satisfaction. It has gained its great reputation with the medical profession by reason of the acknowledged skill and care exercised by the California Fig Syrup Co. in securing the laxative principles of the senna by methods of its own, and presenting them in the best and most convenient form.

The California Fig Syrup Co. has special facilities for commanding the choicest qualities of Alexandria senna, and its chemists devote their entire attention to the manufacture of the one product.

The name "SYRUP OF FIGS" means to the medical profession the "family laxative, manufactured by the California Fig Syrup Co.," and the name of the company is a guarantee of the excellence of its product.

Informed of the above facts, the careful physician will know how to prevent the dispensing of worthless imitations when he recommends or prescribes the original and genuine "SYRUP OF FIGS."

It is well known to physicians that "SYRUP OF FIGS" is a *simple*, *safe*, and *reliable* laxative, which does not irritate or debilitate the organs on which it acts, and, being pleasant to the taste, it is specially adapted to ladies and children, although generally applicable in all cases. Special investigation of the profession invited.

"SYRUP OF FIGS" is never sold in bulk. It retails at fifty cents per bottle, and the name "SYRUP OF FIGS," as well as the name of the California Fig Syrup Company, is printed on the wrappers and labels of every bottle.

CALIFORNIA FIG SYRUP COMPANY

San Francisco, Cal.; Louisville, Ky.; New York, N. Y.

Painful Monthly Periods

Many Doctors Prescribe

a combination of DIOVIBURNIA and NEUROSINE (equal parts) to abate the PAIN and NERVOUSNESS of DYSMENORRHEA. DIOVIBURNIA acting as a reconstructor of the parts affected, NEUROSINE allaying the pain, RESUSCITATING and TONING the Nervous System. Physicians can prescribe

DIOVIBURNIA and NEUROSINE

with impunity, as these products CONTAIN NO OPIUM, MORPHINE, CHLORAL, or other deleterious drugs.

Full size bottle of each, free, to physicians (who have not already received same) desirous of giving DIOVIBURNIA and NEUROSINE an impartial trial, they paying the express charges.

DIOS CHEMICAL CO., ST. LOUIS, MO.

DRAGÉES CÉLINEAU

The Dragees Gelineau constitute the most appropriate medication for the treatment of epilepsy. Their action is manifest in that peculiar neurasthenia which is neither hysteria nor hypochondria, and which prevails among women at the menstrual epoch or at the change of life.

SIRUP CELINÉAU

Whenever it is necessary to induce a beneficent sleep and to act against insomnia caused by hysteria, neurasthenia, neuralgia, convulsions, or delirium, the Sirup Gelineau will be found of supreme importance and of heroic action.

Dragees Gelineau are an antinervine agent of the most rational type, being an association of Bromide of Potassium, Arsenic and Picrotoxine. The Bromide diminishes the reflex sensibility of the nervous system, and the congestive predisposition of the cerebrum in epilepsy. The Picrotoxine has its action on the convulsive and spasmodic tendencies of neurotics, and finally the Arsenic is the repairer of the nerve cells.

GEO. J. WALLAU, U. S. Agent, - - - 2 and 4 Stone Street, New York

---

THERE ARE SEVERAL GOOD APERIENT WATERS;
SOME ARE BETTER THAN OTHERS;
BUT THE BEST IS ACKNOWLEDGED TO BE . . . **CARABAÑA**

At least, the Paris and Madrid Academies of Medicine and the leading American Mineral Water Authorities so declare.

CARABAÑA is the ONLY Natural Antiseptic Aperient Water.

Write for Analysis, etc., to the Sole Importer:

GEO. J. WALLAU, = = = 2 and 4 Stone Street, New York.

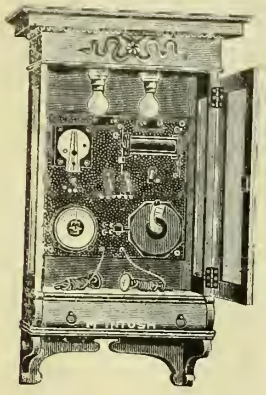
Chicago Policlinic and Hospital

Pioneer Post-Graduate School of the West

Regular FALL AND WINTER SESSION will be resumed SEPTEMBER 15th. Large Clinics, unexcelled Hospital facilities, and instruction by a corps of the leading specialists of Chicago ensure the practitioner rare opportunities for post-graduate work under the very best auspices. For announcement, schedule, and full information address

M. L. Harris, M. D., Sec'y, 174-176 E. Chicago Ave., CHICAGO, ILL.

ELECTRO-THERAPEUTICAL APPARATUS . . .



Galvanic and Faradic Wall Plate No. 6

THIS very desirable Switchboard, in handsome quarter-sawed Oak Cabinet, represents the highest standard of workmanship and material. It embodies all the latest improvements adaptable to this class of apparatus, and the simplicity of its arrangement affords perfect ease in operation, while it combines those accessories indispensable for the application of galvanic and faradic currents. The Milli-amperemeter, measuring the galvanic current, is graduated from 0 to 400 milliamperes, and accurately indicates the amount of current administered. The Faradic Coil is provided with two Vibrators; one giving course vibrations; the other, the Singing Rheotome, giving high rate of vibrations, especially adapted for producing local Anesthesia. The Automatic Rheotome measures any required number of interruptions per minute of either the galvanic or faradic current; the Graphite Rheostat controls both currents, and makes it possible to administer either gradually or in exact dosage. The Plate is also supplied with a pole-changer switch, binding posts, etc., and can be used on either the direct lighting current or a battery of cells. Write for our descriptive pamphlet and catalogue of electrodes.

We are the sole and exclusive owners of this design of switchboard. Insist upon having the genuine McIntosh workmanship. Send for description and prices. **BATTERIES, ELECTRODES, STATIC MACHINES.**

McIntosh Battery & Optical Co., 39 W. Randolph St., Chicago.

POLK'S MEDICAL REGISTER AND DIRECTORY

(ESTABLISHED 1886.)

The only complete Medical Directory.

Its information is procured from original and official sources The only Medical Directory having an Index to all physicians in the United States. The publishers possess the only complete list of college graduates in existence, many colleges having become extinct, and the records of others having been lost or destroyed. See that the name R. L. Polk & Co. is on the subscription order.

R. L. Polk & Co.,

Publishers,

Detroit, - - Michigan

E. J. ANGLE, A.M., M.D.

Practice Limited to Dermatology, Syphilology, and Genito-Urinary DISEASES.

1215 O St., Lincoln, Neb.

DR. W. L. DAYTON. DR. J. P. WILLIAMS.

Doctors Dayton & Williams

PRACTICE LIMITED TO DISEASES OF

EYE, EAR, NOSE, AND THROAT.

OPHTHALMIC AND AURAL SURGEONS

TO ST. ELIZABETH'S HOSPITAL

1205 O STREET, LINCOLN, NEB.

A. C. STOKES, M. S.

ANALYTICAL CHEMIST

Prof. Chemistry and Toxicology, Omaha Medical College.

Urine, Stomach Contents, and Blood, Etc., Examined. Differential Diagnosis of Cancer and Ulcer. Assaying.

1107a Pacific Street, ...OMAHA.

Medical Dental Pharmacal BOOKS

NEW AND STANDARD

CATALOGUE FREE UPON APPLICATION

LEA BROTHERS & CO., 706-710 SANSOM STREET PHILADELPHIA

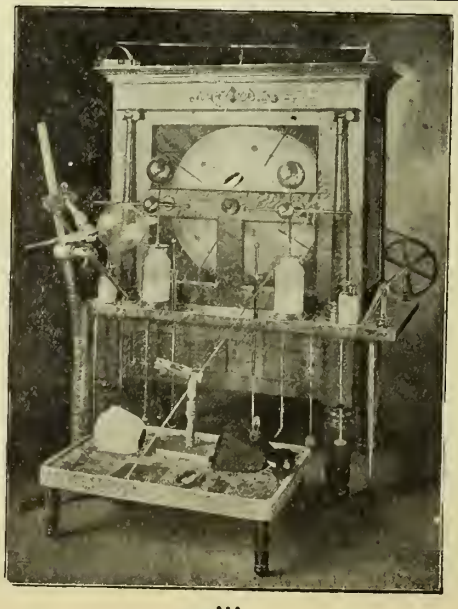
NEURILLA

SOOTHES, CALMS AND REGULATES THE NERVES.

INDISPENSABLE FOR NERVOUSNESS.

No bad effects follow its use.

DAD CHEMICAL CO., NEW YORK.



Look Before You Leap

INTO $300 TO $400 DEPTHS

Call at our factory and see how every part is made before buying We make everything as good as skilled workmen and money can produce, and still we can sell you a

16-Plate Perfection Static and X-RAY MACHINE With $75 Worth of Accessories

ALL FOR $175 CASH

We are satisfied with a small profit on each machine.

Piano finished quarter-sawed oak case.

Sparks every day, rain or shine.

Fully guaranteed.

Send for our Bargain Bulletin—Hundreds of Bargains.

Western Surgical Instrument House

647-653 W. 59th St., CHICAGO, ILL.

Nebraska State Medical Association meets at Omaha, May 3, 4, 5, 1904.

WESTERN MEDICAL REVIEW.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY PUBLISHED BY WESTERN MEDICAL REVIEW CO.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members. For officers and committees see advertisement page viii.

VOL. IX, No. 3. LINCOLN, NEBRASKA, MARCH 15, 1904. $2.00 PER ANNUM

CONTENTS.

EDITORIAL 55

NOTES AND NEWS 56

BOOK REVIEWS 57

ORIGINAL ARTICLES.

The Objections to Chloroform. By W. O. HENRY, M. D., Omaha, Neb 58

Observations on Obstetrics in General Practice. By J. F. MCNULTY, M. D., Callaway, Neb 62

Some of the More Common Forms of Hernia. By B. B. DAVIS, A. B., M. D., Omaha, Neb 63

Optic Neuritis. By S. E. COOK, M. D., Lincoln, Neb 66

Exophthalmic Goiter. By LE ROY CRUMMER, M. D., Omaha, Neb 68

Extra-Uterine Pregnancy. By JOHN PRENTISS LORD, M. D., Omaha, Neb 71

SPECIAL ARTICLE.

The Scientific Basis of Mind Cure. By SELWYN A. RUSSELL, M. D., Poughkeepsie, N. Y. 73

NERVOUS AND MENTAL DISEASES 77

GYNECOLOGY 78

DERMATOLOGY AND GENITO-URINARY DISEASES 80

EYE, EAR, NOSE AND THROAT 81

SOCIETY PROCEEDINGS 82

A PHYSICIAN'S PRACTICAL GYNECOLOGY.

OFFICE TREATMENT OF RECTAL DISEASES.

THE REVIEW PRESS,

1134 N St., LINCOLN, NEB.

PARKE, DAVIS & CO.'S

ANTIDIPHTHERITIC SERUM

IS

ACCURATELY STANDARDIZED

You know exactly how many antitoxic units each bulb contains. It is

BACTERIOLOGICALLY AND PHYSIOLOGICALLY TESTED

You can rely upon its potency and safety. It is

SUPPLIED IN HERMETICALLY SEALED GLASS CONTAINERS

They effectually prevent contamination.

NO GUESSWORK WHEN YOU USE OUR ANTI-DIPHTHERITIC SERUM.

PARKE, DAVIS & COMPANY

LABORATORIES: DETROIT, MICH.; WALKERVILLE, ONT; HOUNSLOW, ENG.

BRANCHES: NEW YORK, CHICAGO, ST LOUIS, BOSTON, BALTIMORE, NEW ORLEANS, KANSAS CITY, INDIANAPOLIS, MINNEAPOLIS, MEMPHIS; LONDON, ENG; MONTREAL, QUE.; SYDNEY, N S.W; ST. PETERSBURG, RUSSIA; SIMLA, INDIA; TOKIO, JAPAN.

HENRY P. [illegible]

Blood Nourishment During Lactation.

At the time when a mother must share her food supply with her child the liability to systemic depletion is great. If the quality of the blood in the mother is allowed to fall below normal, the food of the child will not be of proper life-forming quality.

Pepto-Mangan ("Gude")

restores depleted conditions of the blood by feeding it with manganese and iron. It builds rich, red blood and is a nutrient and general reconstructive tonic.

Pepto-Mangan ("Gude") is ready for quick absorption and rapid infusion into the circulating fluid and is consequently of marked and certain value in all forms of

ANÆMIA, CHLOROSIS, BRIGHT'S DISEASE, RACHITIS, NEURASTHENIA, Etc.

To assure proper filling of prescriptions, order Pepto-Mangan ("Gude") in original bottles containing ℥ xi. *IT'S NEVER SOLD IN BULK.*

SAMPLES AND LITERATURE UPON APPLICATION.

M. J. BREITENBACH COMPANY,

Laboratory, Leipzig, Germany.

53 Warren Street, NEW YORK.

BOVININE in ANÆMIA

BOVININE overcomes *Anæmia* logically, rationally and radically, for several substantial reasons:

1. Because it supplies the starving organism with the requisites for immediate reparation.
2. Because it needs no preparation or transformation at the hands of the vital machinery before it can be assimilated and converted into living force.
3. Because *Anæmia* results from a form of malnutrition caused by the absolute inertia of the digestive function.

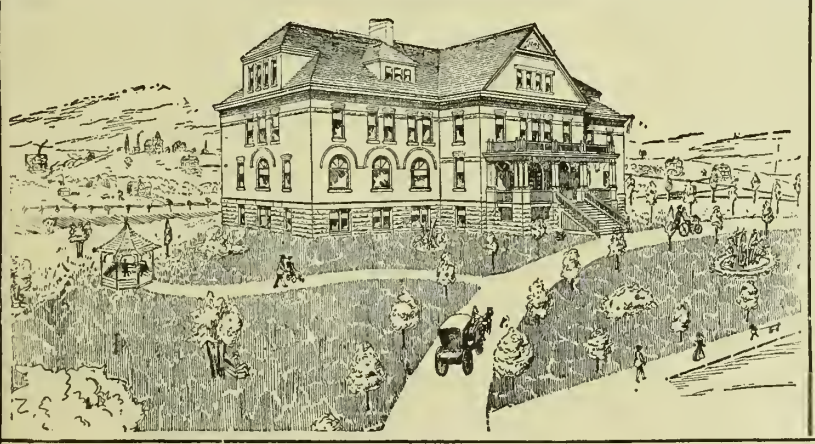
BOVININE comes to the rescue by supplying a vitalized and perfectly compounded pabulum that calls for no chemico-vital effort whatever.

Apply the crucial test—clinical use—at our expense, and convince yourself that our claims are neither extravagant nor exaggerated, but are strictly based on science.

The Bovinine Company

75 West Houston Street, NEW YORK

THE DR. BENJ. F. BAILEY SANATORIUM



Not a hospital, not a hotel, but a home. The building is located on a sightly hill at Normal, and is reached by the cars of the Lincoln street railway, being only 23 minutes' ride from the business center of the city. It is thoroughly equipped and beautifully furnished. Every electric current useful in the treatment of the sick is used, and ideal Turkish, Russian, and Medicated Baths are given. Only non-contagious cases are received. For further information address

The B. F. BAILEY SANATORIUM, Lincoln, Neb.

LIBRARY

PROGRESS IN GENITO-URINARY THERAPEUTICS

Shows no advance more important than the introduction of

Uriseptin

Liberates Formaldehyd slowly in the Kidneys — Makes the Urine Antiseptic

Keeps the Urinary Tract Aseptic

The ONLY Urinary Antiseptic with Diuretic and Soothing properties

URISEPTIN is a distinct advance because it renders possible Antisepsis of the Urinary Tract by internal medication. Urine voided thirty minutes after the taking of a tablespoonful of Uriseptin is antiseptic to such an extent as to be a bactericide to pyogenic germs. In CYSTITIS relief is prompt, and results are continuous. In URETHRITIS, during the Acute Stage, pain is lessened, inflammation and further infection prevented. Chronic Urethritis—Bacteria are destroyed, the surfaces soothed, and healing is prompt. The results are the same in all inflammatory conditions of the urinary tract. Uriseptin has the endorsement of sixty per cent of the members of the "American Association of Genito-Urinary Surgeons" as being the best palliative treatment for Prostatic Hypertrophy.

FORMULA AND DOSE

Each fluid ounce contains 24 grains of Lithium Methaminate (Lithium Salt of Formaldehyd) dissolved in Aqueous Extract of Corn Silk and Couch Grass.

One or two teaspoonfuls four times a day, preferably in hot water.

Full information furnished physicians on request, or eight-ounce bottle sent express paid on receipt of twenty-five cents.

GARDNER-BARADA CHEMICAL CO.

CHICAGO

U. S. A.

42 RIVER STREET

INDICATED IN

NEPHRITIS PYELITIS URETHRITIS
CYSTITIS CALCULUS RHEUMATISM
GOUT GONORRHEA GLEET
BACTERIURIA OF SCARLET,
TYPHOID AND OTHER FEVERS
PNEUMONIA

Creighton Medical College

CORNER 14th AND DAVENPORT STREETS

OMAHA, = = = = NEBRASKA

THE ELEVENTH ANNUAL COURSE OF STUDY in this institution will begin Wednesday, September 21st, 1904. The course in this college consists of four terms of seven and one-half months each. The first two years are devoted to the study of the so-called scientific branches included in a medical course. For this purpose the new college building is furnished with lecture rooms and laboratories equipped with the latest and best paraphernalia for teaching, demonstrating, and for individual work in these branches. The third and fourth years are given up to the study of what might be termed the practical part of the medical course. Here the instruction is carried on by means of Clinics and Clinical lectures. The student is brought in contact and becomes familiar with the different phases of all diseases he reads about. For this purpose the clinical material in St. Joseph's, St. Bernard's, and Mercy hospitals, the three largest hospitals in the west, is reserved for the exclusive benefit of students attending this school.

All buildings, both college and hospitals, are new and modern, and the equipment the best that money can buy. In addition to the regular term of seven and one-half months, a spring course of two months in first and second year work is continued from close of winter term to last of June. This short course gives students, deficient in time or work, an opportunity to make up such deficiency and also allows physicians already in practice to renew their acquaintance with laboratory work, and to familiarize themselves with whatever new things there are in Histology, Pathology, Bacteriology, Chemistry, etc.

For further information address

D. C. BRYANT, M. D., Secretary,

206 McCague Building, Creighton Medical College, Omaha, Nebraska

The New York Polyclinic Medical School ....and Hospital....

214-220 East 34th St., New York City

FOUNDED IN 1881

Practical Post-Graduate Courses in all the Departments of Medicine and Surgery

THE DISPENSARY AND HOSPITAL annexed to the institution yield a variety of material for clinical demonstrations of the technic of major and minor surgical operations, the diagnosis and treatment of diseases. Modern methods in the special branches of each department are studied. Laboratory instruction in Pathology, Bacteriology, and Urinary Analysis. Classes in Operative Surgery and Electro-radio Therapy.

For further information address

Charles H. Chetwood, M. D.,
Secretary of the Faculty.

Post-Graduate Medical School and Hospital of Chicago

2400 Dearborn St.

Actual Clinical Work with Abundant Material and Small Classes

The facilities for Post-Graduate teaching are thorough and complete in all departments, including HOSPITAL, CLINICAL, and LABORATORY advantages that are not excelled anywhere. Students can matriculate with equal advantage at any time.

Laboratories are under the direct supervision of Prof. Theo. Edwin Klebs.

For Illustrated Announcement address the Secretary,

FRANKLIN H. MARTIN, M. D.,
2400 Dearborn Street, CHICAGO, ILLINOIS.

K&O. DOUCHE FOR THE APPLICATION OF GLYCO-THYMOLINE TO THE NASAL CAVITIES

GLYCO-THYMOLINE

FOR

CATARRHAL CONDITIONS

Nasal, Throat

Intestinal

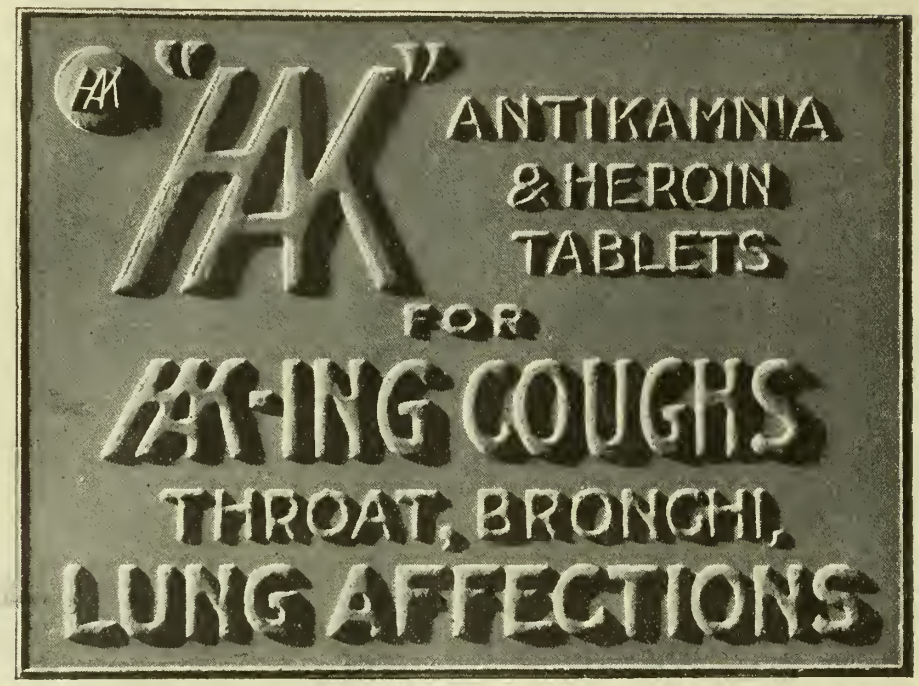
Stomach, Rectal

and Utero-Vaginal

KRESS & OWEN COMPANY

210 FULTON STREET NEW YORK

LIBRARY



ALLOUEZ

Bi-Magnesia Spring Water

The Natural Remedy for Glycosuria, Diabetes, Nephritis, Bright's Disease, Rheumatism, Gout

• • • • EVIDENCE IN DIABETES • • • •

S. BARUCH, A. M., M. D., Lexington Ave. and 79th St., New York city:
"I have used the Allouez Magnesia water in a number of cases of diabetes with good results."

L. W. HAWK, M. D., Rochester, N. Y.:
"I employed Allouez Magnesia very satisfactorily in albuminuria during pregnancy."

EDGAR A. FISHER, M. D., Worcester, Mass.:
"A valuable adjuvant in diabetes mellitus and diseases of the kidneys and urinary organs."

W. F. HONAN, M. D., Sherman Sq., New York:
"The Allouez Magnesia water produced prompt disappearance of the sugar with consequent lowering of the gravity. The ages of the patients treated ranged from 40 to 81 years. Some had diabetes for four years. I am much pleased, doctor." (Letter to Dr. Egbert Guernsey, New York city.)

PROF. CLIFFORD MITCHELL, A. M., M. D., Chicago:
"Inasmuch as many of the patients, who have been cured by the water, had resisted the action of jumbul, arsenic, lithia, and codeine, I ask, IS IT A DISCOVERY IN THE THERAPEUTICS OF DIABETES?"

MORRIS HALE, M. D., Hot Springs, Ark.:
"Allouez Magnesia water has given me invaluable aid in the treatment of diabetes mellitus."

L. A. KENGLA, M. D., San Francisco:
"A splendid remedy in Bright's disease, diabetes, and uric acid excess."

Brochure of Medical Endorsements on request.

(Still: Half-Gals.) Sparkling: Pints, Quarts, Splits.

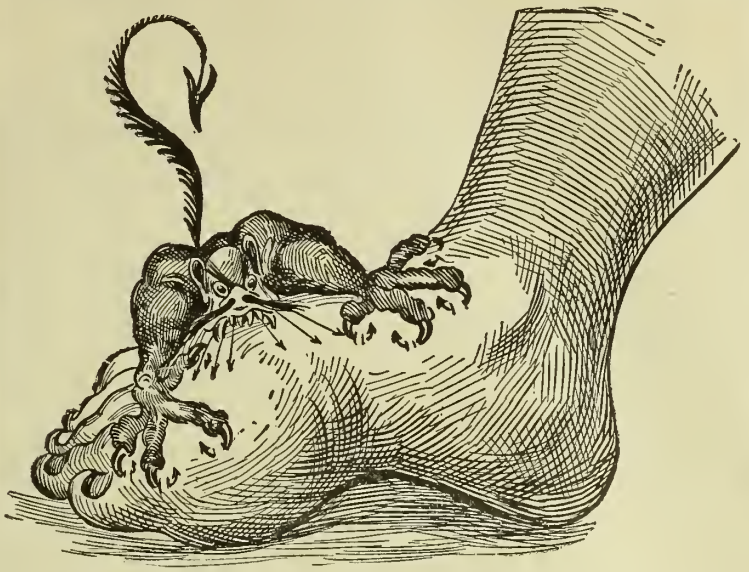
ALLOUEZ MINERAL SPRING CO., (P. O.) Green Bay, Wis.

Chicago Office, 1129 Masonic Temple.

DISTRIBUTERS

New York: H. T. Hodgskin, 68 Broad St.
Philadelphia: Kaiser & Co.
Detroit: G. & R. McMillan.
Washington: Kaiser & Co.
St. Louis: Meyer Bros. Drug Co.
Montreal: Fraser, Viger & Co.
Buffalo: Kempff Bros., 357 Genesee
Pittsburg: Boericke & Tafel.
New Orleans: Finley Dicks Co.
Cincinnati: J. R. Peebles & Sons.
Worcester, Mass.: W. S. Pratt.
Hamilton, Ont.: Balfour & Co.
Cleveland: Chandler Rudd Co.
Atlanta, Ga.: J. B. Daniel.
Omaha: Sherman & McConnell Co.
Denver: Scholtz Drug Co.
San Francisco: D. M. Fletcher, Geary St.
Boston: S. S. Pierce Co.
Los Angeles: F. W. Braun & Co.
New Westminster, B. C.: H. Freeman.
Toronto: Lyman Bros. Co.

The Demon, GOUT, whose only master is THIALION.



THE VASS CHEMICAL COMPANY, Inc., Danbury, Connecticut, U. S. A.

The "Master" Elastic Stockings

FIT BEST
FEEL BEST
WEAR BEST
ARE THE BEST

Why not Buy the Best and be Satisfied?

Save Time, Patience and Patients!

The superior quality of materials in these goods would make them the most economical to use, even were they not provided with "Master" stays. The stays make them doubly so.

	Heavy Silk	Fine Silk	Thread
Garter Stocking, A to E,	$3.56	$3.00	$1.88
Garter Legging, C to E,	2.62	2.25	1.65
Knee Stocking, A to G,	5.62	4.87	3.37
Knee Legging, C to G,	4.69	4.12	3.15
Knee Caps and Anklets,	2.25	2.06	1.57

Physicians Net Price List

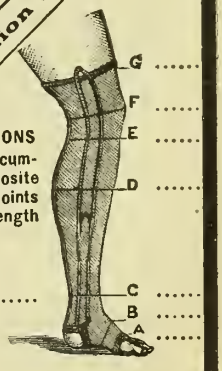
On receipt of price we deliver the goods by mail.

Write for catalogues on Elastic Stockings, Supporting Belts, Trusses, Orthopedic Instruments, Crutches.

Pomeroy Company

17 Union Square, New York

Cut here, mail to Pomeroy Company, 17 Union Square, New York



DIRECTIONS
Place Circumferences opposite corresponding points on the cut. Give length from floor to F.

Name of Article.....
Material.....
Enclose Price $.....
Name .....
Address.....

NEBRASKA STATE MEDICAL ASSOCIATION.

OFFICERS AND COMMITTEES, 1903-1904.

OFFICERS.

PRESIDENT—B. F. Crummer.... ....Omaha.
VICE-PRESIDENT—G. W. Shidler.....York.
VICE-PRESIDENT—P. E. Plumb..... .....Gothenburg.
RECORDING SECRETARY—A. D. Wilkinson.....Lincoln.
CORRESPONDING SECRETARY AND LIBRARIAN—
H. Winnett Orr .. ..Lincoln.
TREASURER—J. L. Greene.....Asylum.

COMMITTEES.

SCIENTIFIC WORK.

A. D. Wilkinson, *Chairman*.....Lincoln.
B. B. Davis.....Omaha.
W. D. Beattie.....Neligh.
J. M. Mayhew.....Lincoln.
J. M. Aikin.....Omaha.
A. B. Somers.....Omaha.
I. C. Philbrick.....Lincoln.

PUBLIC POLICY AND LEGISLATION.

A. S. von Mansfelde, *Chairman*.....Ashland.
F. D. Haldeman.....Ord.
C. L. Mullins.....Broken Bow.
B. F. Crummer.....Omaha.
A. D. Wilkinson.....Lincoln.

PUBLICATION.

A. D. Wilkinson, *Chairman*.....Lincoln.
R. C. McDonald.....Fremont.
M. L. Hildreth.....Lyons.

COUNCILORS.

1st District—B. B. Davis .....Omaha.
2d District—A. R. Mitchell.....Lincoln.
3d District—J. W. Bullard.....Pawnee City.
4th District—E. Tanner.....Battle Creek.
5th District—R. C. McDonald.....Fremont.
6th District—L. M. Shaw.....Osceola.
7th District—G. L. Pritchett.....Fairbury.
8th District—A. Lewis.....Valentine.
9th District—C. L. Mullins.....Broken Bow.
10th District—W. D. Shields.....Holdrege.
11th District—J. A. Andrews.....Eustis.
12th District—J. E. Moore.....Alliance.

SECTIONS.

SURGERY.

B. B. Davis, *Chairman*.....Omaha.
W. D. Beattie, *Secretary*.....Neligh.

MEDICINE.

J. M. Mayhew, *Chairman*.....Lincoln.
J. M. Aikin, *Secretary*.....Omaha.

GYNECOLOGY AND OBSTETRICS.

A. B. Somers, *Chairman*.....Omaha.
I. C. Philbrick, *Secretary* .....Lincoln

DELEGATES TO A. M. A.

H. M. McClanahan, Omaha. A. B. Anderson, Pawnee City.

SECRETARIES OF COUNTY SOCIETIES.

COUNTY.	SECRETARY.	ADDRESS.
Adams	R. R. Marble	Hastings.
Antelope	D. W. Beattie	Neligh.
Boone	R. J. Murdock	Petersburg.
Box Butte	J. E. Moore	Alliance.
Boyd	W. F. Craft	Gross.
Brown	G. O. Remy	Ainsworth.
Buffalo	G. M. Hull	Kearney.
Burt	I. Lukens	Tekamah.
Butler	H. R. Burdick	David City.
Cass	W. A. Alton	Elmwood.
Cedar	Morris Nielsen	Belden.
Cherry	M. P. McDowell	Merriman.
Clay	A. R. Ray	Fairfield.
Colfax	G. L. Dewey	Leigh.
Custer	C. L. Mullins.	Broken Bow.
Dawes	A. E. Wier	Chadron.
Dawson	P. E. Plumb	Gothenburg.
Dixon and Dakota	R. Q. Rowse	Wakefield.
Dodge	A. P. Overgaard	Fremont.
Douglas	J. M. Aikin	Omaha.
Fillmore	C. F. Morsman	Strang.
Franklin	U. H. Malick.	Bloomington.
Frontier	Willis Wilson	Curtis.
Gage	I. N. Pickett	Odell.
Greeley	J. L. Brannen	Greeley.
Hall	J. C. Horton	Grand Island.
Hamilton	I. W. Houghey	Aurora.
Harlan	J. N. Campbell	Stamford.
Holt	P. J. Flynn.	O'Neill.
Howard	F. S. Nicholson	St. Paul.
Jefferson	Warren Perry	Fairbury.
Johnson	C. K. Chubbuck	Tecumseh.
Kearney	S. J. Jones	Minden.
Knox	R. C. Burrell	Creighton.
Lancaster	H. W. Orr.	Lincoln.
Lincoln	V. Lucas	North Platte.
Madison	F. A. Long	Madison.
Merrick	J. E. Benton	Central City.
Nance	D. M. Judkins	Fullerton.
Nemaha	W. E. Shook	South Auburn.
Otoe	C. S. Crudup	Nebraska City.
Pawnee	H. L. Akin	Du Bois.
Phelps	P. A. Sundburg	Holdrege.
Platte	J. C. McKinley	Humphrey.
Polk	L. M. Shaw	Osceola.
Red Willow	W. D. Mackechnie	Indianola.
Richardson	F. C. Wiser	Falls City.
Saline	E. Bates.	Crete.
Sarpy	E. C. Ruge	Springfield.
Saunders	M. A. Quincy	Ashland.
Seward	C. O. Petty.	Beaver Crossing.
Stanton	J. C. Watton	Pilger.
Thayer	J. H. Boyes	Hebron.
Thurston	N. R. Smith	Pender.
Valley-Loup-Garfield	D. S. Hogan	North Loup.
Washington	G. A. Langstaff	Blair.
Wayne	W. H. Phillips	Carroll.
Webster	C. A. Creighton	Red Cloud.
York	J. W. Straight	Benedict.

UROTROPIN

the safest and most efficient urinary antiseptic, uric acid solvent, and prophylactic in genito-urinary instrumentation and typhoid. Its literature comprises more than 200 reports from eminent practitioners on both continents.

Schering's Formalin Lamp

SIMPLE—CONVENIENT—SAFE

A powerful auxiliary in the treatment of catarrhs, whooping cough, influenza, diphtheria, measles, scarlatina, small-pox, etc. It renders the infection shorter and milder, and lessens the danger of contagion. Evolves 100% of pure formaldehyde gas, while wood alcohol lamps produce less than 5% formaldehyde, the rest being wasted as CO and CO_2. The vaporization of the Formalin Pastils can be regulated at will and perfect deodorization may be effected without discomrort to the patient.

FORMALIN-SCHERING (the standard 40% formaldehyde solution) should be specified when the liquid is to be used, to prevent the substitution of inferior brands of varying strength.

SUBLAMINE

A SURGICAL DISINFECTANT indicated in all cases where sublimate is used. Its advantages are **Absolute Non-Irritancy, Deeper Penetration, Ready Solubility, etc.** Bacteriologically tested and recommended by the highest authorities.

LITERATURE ON APPLICATION

SCHERING & GLATZ, Sole Agents, New York

THE GOODNESS ISN'T THE GREASE

There are just two things about ***Cod Liver Oil***—goodness and grease. It used to be thought you couldn't get the goodness without the grease. That's wrong. The goodness isn't the grease. It is no more necessary to swallow the nauseous grease of ***Cod Liver Oil*** to get the valuable principles, than it is to eat the shell of an egg to get the meat.

Right there you have the whole secret of the incalculable value of

Hagee's Cordial of Cod Liver Oil Comp.

In separating the grease from the valuable properties, nothing is lost in the process. You get all that ***Cod Liver Oil*** is famed for, joined with the hypophosphites of lime and soda in a pleasant cordial, without a trace of the dreaded taste. Instead of being greasy, it is delightful to take. Instead of a fishy smell, it has an appetizing odor.

HAGEE'S CORDIAL is not a patent medicine. There's nothing mysterious about it. We have simply taken a disagreeable but good remedy, and made it better by making it palatable. Formula on every bottle.

PRESCRIBE

CORD. OL. MORRHUAE COMP. (Hagee)

AND JUDGE OF THE MERITS BY RESULTS.

Put up in 16-oz. bottles only. Never sold in bulk.

Katharmon Chemical Co.,

ST. LOUIS, MO.

ANTIPHLOGISTINE

Properly applied, is unquestionably the strongest therapeutic force in successfully waging the much talked of

CRUSADE AGAINST PNEUMONIA

Antiphlogistine is a scientific preparation having a definite physiological action, and that its remedial value may be fully realized, it should be used with careful attention to detail.

ANTIPHLOGISTINE

Applied warm and thick to the entire thoracic walls, front, sides and back, and covered with a cheese-cloth cotton-lined jacket

PRODUCES IMMEDIATE RESULTS

By induction of cutaneous hyperæmia (flushing the superficial capillaries), it bleeds but saves the blood. Thus, all the distressing symptoms are ameliorated. The overworked heart, the congestion, the pain, the rapid and difficult breathing are promptly relieved. The pulse improves, the temperature declines, and refreshing rest and sleep are invited.

The patient receives Antiphlogistine in perfect condition when the physician prescribes original packages.

Marketed only in four sizes—

Small, Medium, Large and Hospital—

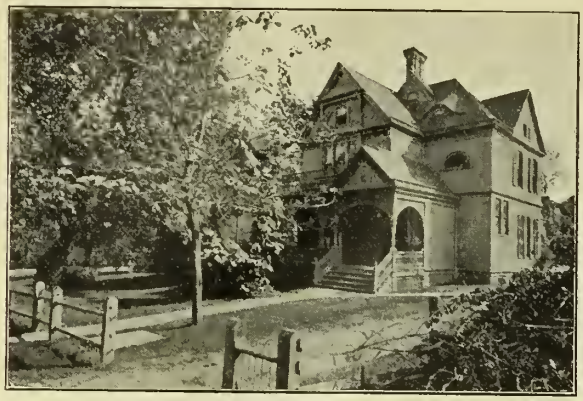
Never in bulk.

The Denver Chemical Mfg. Co.

DENVER **LONDON** **NEW YORK**

Walnut Hill Sanitarium

Corner Thirty-Third and Burt Sts., OMAHA, NEB.



Devoted Exclusively to the Treatment of Narcotic and Alcoholic Addictions and Special Nervous Cases. Conducted on Strictly Ethical Lines.

S. L. BROWN, M. D. **Phone 3476**

LINCOLN
Clinical Laboratory

DR. H. WINNETT ORR in Charge

LINCOLN, NEBRASKA

Pharmaco=therapy

By DR. P. E. KOERBER

Small size book, handy for pocket, written especially for the practicing regular physician. Metric system.
Price, $1.00. Address

DR. P. E. KOERBER,
Yutan, Nebraska.

New Orleans Polyclinic

Seventeenth Annual Session Opens November 2d, 1903, and Closes May 28th, 1904.

Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory work. For further information address

New Orleans Polyclinic,

POST-OFFICE BOX 797. NEW ORLEANS, LA.

H. GIFFORD, M. D. GEO. H. BICKNELL, M. D.
Practice Limited to Diseases of the Eye, Ear, Nose, and Throat
Karbach Block, Fifteenth and Douglas Streets, Omaha, Neb. Tel. 739.

DR. R. D. MASON
Rectal and Pelvic Surgery
Author of "The Office Treatment of Rectal Diseases." Price $1.50.
OMAHA, NEBRASKA.

Telephones: Office, 1532; Residence, 2707 Long Distance. Office Hours, 10 to 12 a. m., 2 to 5 p. m. Sabbath by appointment only.

....DR. J. M. AIKIN, NERVOUS AND MENTAL DISORDERS....
Office, Brown Block, Sixteenth and Douglas Streets, Omaha, Neb.

Dr. Charles C. Allison
SURGERY AND GYNECOLOGY
Telephones 156 and 220 ***Omaha. Nebraska***

Tel. { Residence, 426 / Office, - - 888 . . . **Nervous and Mental Diseases**

S. K. SPALDING, M. D.
Office McCague Building. Fifteenth and Dodge Streets. Omaha, Neb.

DR. JOHN PRENTISS LORD — Tel. Office 33, Res. Long Distance 966
DR. FREDERICK RUSTIN — Tel. Office 33, Res. Long Distance 2404

DRS. LORD AND RUSTIN
Practice limited to **General Surgery.** Paxton Block, Sixteenth and Farnam Streets, Omaha, Neb. Office hours, afternoons and by appointment.

PATHOLOGY AND BACTERIOLOGY
W. R. LAVENDER, M. D.
Office 5-6 Continental Blk. Residence 2208 Burt St. Tel. 1292. Omaha, Neb.

SOLON R. TOWNE, A. M., M. D.
Contagious Dis. Hygiene Sanitation
Telephones No. 1065 and No. F 330. ***Omaha, Nebraska***

DR. JAMES L. GREENE
Superintendent of the Nebraska Hospital for the Insane, Lincoln, will visit, in consultation, when called by physicians, cases of
BRAIN OR NERVE DISEASES

F. E. COULTER, M. D., Omaha, Neb.
LATE Assistant Sir W. R. Gowers, M. D, F. R. S., London. Professor Clinical Neurology Creighton Medical College. Neurologist St. Joseph Hospital, etc., etc. Practice limited to Nervous Diseases. Office McCague Bldg.

Drs. W. O. & E. C. Henry
Rooms 402-3-4 McCague Building.
SURGEONS AND GYNECOLOGISTS
Phones: Office, 888; Residence and Long Distance, 88. ***Omaha. Neb.***

Dr. H. B. Lemere, 309 Paxton Block, Omaha, Neb.
Long Distance Telephone 685. Residence Black 2911. Hours 9 to 12, 2 to 5.
Practice limited to **Eye, Ear, Nose, and Throat**

DR. W. H. CHRISTIE Office, rooms 48 and 49 Barker Block, Omaha. Telephone Residence 479, Office 872, connects with long distance telephone. Special attention to Diagnosis, Consultation and ... INTERNAL MEDICINE
DR. B. W. CHRISTIE in Charge of Laboratory.

LINCOLN CLINICAL LABORATORY . . . .
Examinations of Urine, Sputum, Blood and Tissues, Microscopical and Chemical, of all kinds to assist in diagnosis.
H. WINNETT ORR, M. D. L. D. Telephone B 953. LINCOLN, NEB.

DR. C. W. POLLARD
Chemical and Microscopical Examinations of Urine, Sputa, Blood, Tumors, Stomach Contents.
Phones: Office 682, Residence 2886. 409 Paxton Block, Omaha, Neb

---

My Specialty Is "Stomach Diseases." Prof. of same Creighton College.
R. E. SCHINDEL, M. D., South Omaha, Neb.
Office 415 North Twenty-fourth Street. Residence Twenty-second and J. Phones (Bells) Office 1392, Res. 4392. Hours 10 to 12 a.m., 1 to 3 and 7 to 8 p.m.

F. S OWEN, M. D. 209 Karbach Block, Cor. 15th & Douglas **Omaha**
Practice Limited to the Eye, Ear, Nose and Throat
Office Hours: 9 a. m. to 12 m.; 1:30 to 4:30 p. m.; Sundays, 10 a. m. to 12 m.
Telephones: Office 321; Residence A2669.

Omaha-Florence Sanatorium, Florence, Neb.
One block west of electric car line. W. L. ROSS, Medical Superintendent, 2121 Lake street, Omaha. Long Distance Phone 1192. Wire or phone for nurses to give Massage, Hydriatic Treatment, and General Nursing.

Dr. A. P. Condon, Long Distance Phone 2918
GENERAL SURGERY,
Office, 311 N. Y. Life Building. ***Omaha, Nebraska.***

The Survival of The Fittest

To obtain immediate results in Anaemia, Neurasthenia, Bronchitis, Influenza, Pulmonary Tuberculosis, and during Convalescence after exhausting diseases employ

Fellows' Syrup of Hypophosphites

Contains—Hypophosphites of Iron, Quinine, Strychnine, Lime, Manganese, Potash.

Each fluid drachm contains the equivalent of 1-64th grain of pure strychnine.

Special Note—Fellows' Hypophosphites *is Never Sold in Bulk.*

Medical letters may be addressed to

MR. FELLOWS, 26 Christopher St., New York.

ECTHOL, NEITHER ALTERATIVE NOR ANTISEPTIC IN THE SENSE IN WHICH THOSE WORDS ARE USUALLY UNDERSTOOD. IT IS ANTI-PURULENT, ANTI-MORBIFIC--A CORRECTOR OF THE DEPRAVED CONDITION OF THE FLUIDS AND TISSUES.

SAMPLE (12-oz.) BOTTLE SENT FREE ON RECEIPT OF 25 CTS.

FORMULA:--Active principles of Echinacia and Thuja.

BROMIDIA
IODIA
PAPINE

BATTLE & CO., CHEMISTS CORPORATION, ST. LOUIS, MO., U.S.A.

ALL THE SALICYLIC ACID IN TONGALINE IS MADE FROM THE PUREST NATURAL OIL OF WINTERGREEN

Tongaline

POSSESSES

THE ANTISPASMODIC AND SEDATIVE ACTION OF CIMICIFUGA

THE CATHARTIC AND DIURETIC ACTION OF COLCHICINE

THE DIAPHORETIC ACTION OF PILOCARPINE

THE ANTI-RHEUMATIC AND ANTISEPTIC ACTION OF SALICYLIC ACID

(WRITE FOR SAMPLES.)

RHEUMATISM
NEURALGIA
GRIPPE
GOUT
SCIATICA
LUMBAGO

TONGALINE LIQUID
TONGALINE TABLETS
TONGALINE & LITHIA TABLETS
TONGALINE & QUININE TABLETS

MELLIER DRUG COMPANY, ST. LOUIS.

PHILLIPS' **EMULSION**

50% best **NORWAY COD LIVER OIL** minutely sub-divided, **WITH WHEAT PHOSPHATES** (Phillips').

Pancreatized, Palatable, Permanent, Miscible in Water, Milk, Wine, Etc.

PHILLIPS' **MILK OF MAGNESIA**

$Mg\ H_2\ O_2$ (FLUID.) "THE PERFECT ANTACID"

for correcting Hyperacid conditions—local or systemic.
Vehicle for Salicylates, Iodides, Balsams, etc.

PHILLIPS' **PHOSPHO-MURIATE OF QUININE, COMP.**

TONIC AND RECONSTRUCTIVE.

WHEAT PHOSPHATES, WITH MURIATE OF QUININE AND STRYCHNINE.

PHILLIPS' WHEAT PHOSPHATES (ACID).
PHILLIPS' SYRUP OF WHEAT PHOSPHATES.
PHILLIPS' DIGESTIBLE COCOA.

THE CHAS. H. PHILLIPS CHEMICAL CO., NEW YORK.

WESTERN

MEDICAL REVIEW.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY PUBLISHED BY WESTERN MEDICAL REVIEW CO.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

H. WINNETT ORR, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska, post-office

VOL. IX, No. 3. LINCOLN, NEBRASKA, MARCH 15, 1904. $2.00 PER ANNUM.

THE MEDICAL PROFESSION IN NATIONAL POLITICS.

The recently organized legislative committee of the American Medical Association has taken its first steps toward influencing the medical side of national political questions. While the president had still under consideration the completion of the Panama canal commission, the legislative committee called upon its representatives everywhere to urge the appointment of a medical member with the idea of avoiding a repetition of the loss of life from epidemic disease that has attended previous work on the canal. Unfortunately these steps were taken by the committee just as the president completed his commission and the communications sent to Washington were too late to have any influence. Unquestionably, however, this step is in the right direction, and even though the first attempt failed to accomplish its purpose, some impression must have been made at Washington quite different from any effect produced by attempts at medical influence previously. If all the members of the committee, representing, as they do, every county in the United States, responded promptly to the appeal of Dr. Chas. A. L. Reed, of Cincinnati, O., our representatives in congress will know, if they have not discovered it before, that a medical organization has been perfected which has definite objects and the intention to accomplish them.

THE CLIMATE OF NEBRASKA.

Thousands of invalids of every type cross Nebraska from east to west every year. They come from all points east of the Missouri river and are destined to Colorado, California or to some point of the great southwest. The larger number of these are patients suffering from pulmonary complaints and they are seeking a change in climate from the low-lying areas on the Atlantic coast. Much has been written and more said about the beneficial effects of all the various climates to the west and south of Nebraska, but comparatively little has ever been said of Nebraska itself as a health resort. It is an unquestionable fact that there are many points in Nebraska which possess great advantages of altitude, of temperature and of surroundings which would be beneficial to the ailing travelers from the east; but because the same and even inferior points that lie beyond us have the advantage of greater exploitation, Nebraska is passed by in favor of the more distant places. It is no infrequent experience for a patient from the east with pulmonary trouble, and suffering from a complicated cardial difficulty, to find it necessary after reaching Colorado to make a hasty return to some lower altitude. Other disadvantages of greater or less importance show themselves also in the west and southwest at different times of the year.

Nebraska should have among its physicians a champion to exploit the virtues of her climate. The outdoor life in Nebraska, especially in the western part, possesses for the beginning consumptive advantages which are too important to be overlooked. The moderate altitude favors the nervous temperament of many of the incipient cases and is a distinct advantage in those cases where there is organic heart disease. It is possible in many places in Nebraska to sleep in the open air almost all the year around, and the accessibility of Nebraska by its great railroad lines from all parts of the country is an accommodation worth considering.

THE ANTI-SPITTING CRUSADE.—At present there seems to be a revival of the anti-spitting crusade, and we hope it will be more effective and permanent in its results than have been previous endeavors along this line. In a number of cities active measures have been taken, and persons have been surprised at their arrest for what they considered the exercise of a natural right. The danger from sputa is a real one, though it may sometimes be exaggerated, but there is enough otherwise objectionable in the habit of itself to make it condemnable. As it has been permitted in the past, no one can question the fact of its having been a nuisance. There is, of course, a certain hardship to persons who have to expectorate, and the habit of carrying pocket cuspidors will be very slowly acquired, and perhaps never will become a general one. But the disgusting practice of spitting on sidewalks, in street cars and on floors generally, is not an excusable one under any circumstances, not even on the ground of necessity.—Journal A. M. A.

LIVERPOOL University's new chair in dermatology is the gift of Dr. Stopford Taylor.

Notes and News.

DR. L. D. FROST, of Harlan, Ia., died last month.

DR. CHARLES V. BEDELL, of North Platte, Neb., died recently.

DR. LOCKE, of Long Prairie, Minn., has moved to California.

DR. L. P. ROSS, of Alma, Neb., has returned to Decatur, Neb.

DR. P. G. GRIMM, of Arlington, Neb., has located in Edgar, Neb.

DR. H. F. RATTE, of Keystone, S. D., has located in Custer, S. D.

DR. H. G. LYNCH, of Spaulding, Ia., has returned to Greenfield, Ia.

THE Southwestern Medical Society met at Creston, Ia., February 19.

DR. JOHN COOKE, of Hastings, Neb., died at his home February 12.

DR. CUMMBERFORD, of Thief River Falls, Minn., has moved to Oregon.

DR. C. A. WARMER, of Drayton, N. D., has located in Petersburg, N. D.

DR. WERNER, of Diamond Bluffs, Wis., has located in Halstad, Minn.

DR. N. L. WERNER, of Zumbrota, Minn., has located at Halstad, Minn.

DR. H. S. SHIPSTEAD, of Belgrade, Minn., has moved to Glenwood, Minn.

DR. DELL F. DUMAS, late of Albert Lea, Minn., has located in Minneapolis.

DR. G. W. DAHLQUIST, of Willow City, N. D., has located at Bisbee, N. D.

THE Woodbury County Medical Society met at Sioux City, Ia., March 3.

DR. GEO. MCCULLOUGH, of St. Paul, Minn., has located in Motley, Minn.

DR. CHARLES SHERMAN, of Sioux City, Ia., has located in Luverne, Minn.

DR. R. M. BURLINGAME, of Hendricks, Minn., has located in Watertown, S. D.

DR. WILBER, of Stanton, Neb., has recently returned from a trip to New York.

DR. H. A. BROWN, formerly of Long Pine, Neb., has moved to Valentine, Neb.

DR. F. V. LYMAN, formerly of Caledonia, Minn., has located in Beltrami, Minn.

DR. C. B. HEIMARK, of Fergus Falls, Minn., has located in Elbow Lake, Minn.

THE Custer County Medical Society held its regular meeting at Broken Bow.

DR. T. BRATRUD, of Warren, Minn., has returned from a year's trip in Europe.

DR. J. B. SUMNER, of Bloomington, Neb., has returned from a trip to Hot Springs.

DR. BURGH, of Osseo, Wis., has left for Norway for a stay of about four months.

DR. FLOYD S. CLARKE, of Sioux City, Ia., has moved to Le Mars, Ia., his boyhood home.

DR. EDWARD HAYWARD and Dr. Thomas Gant, of Nebraska City, Neb., have gone to Japan.

DR. ROSS has moved the Florence branch of the Omaha-Florence Sanitarium to Omaha.

DR. L. C. GLEICK, of Chicago, has arrived in Norfolk, Neb., and will locate there permanently.

DR. AND MRS. F. W. OWEN, of Omaha, Neb., have returned from a month's visit to California.

DR. J. P. SQUIRE, of St. Louis, Mo., has located in the vicinity of Holy Cross and Richardsville, Ia.

DR. W. T. STONE, formerly of St. Cloud, Minn., is located in his new hospital at Park Rapids, Minn.

ACCORDING to the 1904 directory of Iowa physicians, the state has 3,350 physicians and surgeons.

IT is reported that plans to build a $50,000 sanitarium in Lynch, Neb., are being vigorously pushed.

DR. O. B. CANFIELD, of Edgar, Neb., who had been sick for two weeks, died at his residence February 21.

DR. M. R. MCGAUGHEY, of Winona, Minn., has been appointed a member of the state board of health, in the place of Dr. Franklin Staples, who recently died.

DR. ENOCH LEWIS, one of the pioneer physicians of Iowa, died at his home in Oskaloosa, Ia., March 3.

THE Pawnee County Medical Society held its regular quarterly meeting at Lewiston, Neb., on March 7.

DR. J. P. PERCIVAL, of Prague, Neb., has sold his practice to Dr. Joseph Kaspar and has gone to Omaha.

DR. PATCHEN, of Nelson, Neb., has been ill for the past two months but is now able to attend to his patients.

DR. SARA KALAR, of Bloomfield, Neb., who has just passed through a siege of pneumonia, is able to be about again.

DR. CHAS. SANFORD has dissolved partnership with his partner at River Falls, Wis., and has located at Merrill, Wis.

DR. DONALDSON has disposed of his interest in the sanitarium at Faribault, Minn., and has moved to Denver, Colo.

DR. M. E. DONAHUE, of Omaha, Neb., has returned to his home from the Pacific coast, where he has spent the past year.

DR. D. WILLIAMS, of Missouri Valley, Ia., has located in Logan, Ia., where he has formed a partnership with Dr. Jones.

DR. H. LAMB, of Sauk Centre, Minn., has returned from Chicago, where he has been spending some time in the hospitals.

DR. H. F. PRILL, of Augusta, Wis., has gone to Chicago to take a special course in diseases of the eye, ear, nose, and throat.

DR. W. A. WHITE, of South Omaha, Neb., has been appointed for another term as assistant county physician at South Omaha.

DR. NISSEN, of Albert Lea, Minn., is in Berlin studying and later will go to Vienna, expecting to remain there several months.

DR. THOR. MOELLER, of Rolla, N. D., has located in Devils Lake, N. D., and he will practice medicine with his brother, Dr. J. H. Moeller.

DR. MARSDEN, of Hoople, N. D., has located in Buxton, N. D., Dr. Grassick, who has been the resident physician for some time, will go to Europe.

DR. AND MRS. G. B. DENT, of North Platte, Neb., entertained the members of the Lincoln County Medical Society at a turkey dinner February 29.

THE practice of the late Dr. Vernon, of Rushford, Minn., has been taken by Dr. R. V. Williams, of Chicago, a late graduate of Rush Medical College.

DR. E. L. SMITH has been appointed assistant surgeon of the Union Pacific at Shelton, Neb., to succeed Dr. Black, who has removed to Archer, Neb.

DR. A. J. KAESS, of Ortenville, Minn., has charge of the practice of Dr. Mallarian, of Fargo, Minn., during the absence of the latter in California.

DR. L. D. HEWS, of Rockwell City, has assumed the position of house physician at the Samaritan Hospital at Sioux City, Ia., to serve until about May 1.

DR. OPPERMAN, one of the pioneer residents of Nemaha county, Nebraska, died at his home in Cordell, Okla., on February 19, of cancer of the stomach.

DR. SINGER, of London, Eng., who has been the guest of Dr. Coulter, of Omaha, Neb., has sailed for England. He will return to Omaha in about two months.

DR. N. TRONNES, a graduate of the University of Christiana, Norway, has arrived in Fargo, N. D., and will be associated in the medical practice with Dr. Thams.

DR. C. P. CRUDUP, of Nebraska City, Neb., has returned from Berlin and Vienna, where he has been taking post-graduate work in operative surgery and gynecology.

DR. A. D. NESBIT, of Tekamah, Neb., recently went through an operation for an affection of the ear, on account of which he has been confined to his bed for some time.

DR. L. W. SAYLES, of Shell Lake, Wis., has sold his interest in the co-partnership of Sayles & Hering to his partner, Dr. E. R. Hering. He intends to move to Linden, Wis.

DR. FRANCIS W. WILCOX, of West Newton, Mass., has been selected to succeed Dr. Harry Pollock as assistant superintendent of the insane hospital at Fergus Falls, Minn.

DR. SHANELY, of Lidgerwood, N. D., has gone to New Orleans, where he will take a post-graduate course in the diseases of the eye, ear, nose and throat and in surgery.

Dr. S. D. Sauer, of Worthington, Minn., has purchased the business of Dr. H. E. Schlegel, of Redwood Falls, Minn. Dr. Schlegel intends to locate in the state of Washington.

Dr. A. K. Detwiler, of Omaha, Neb., was married in February to Miss Lilla Gates. Dr. and Mrs. Detwiler have sailed for Europe, where they will stay for about two months.

The annual meeting of the Madison County Medical Society met in Norfolk, Neb. Dr. A. Bear, of Norfolk, is president and Dr. F. A. Long, of Madison, is secretary-treasurer.

Dr. H. A. Pollock, assistant superintendent of the Fergus Falls, Minn., insane hospital, has accepted the superintendency of the new state hospital at Norwich, Conn., in process of erection.

Dr. and Mrs. G. C. Moorehead, of Ida Grove, Ia., visited recently in Sac City, Ia. The doctor went to arrange for the medical association program for the meeting to be held in Wall Lake in April.

Dr. Ralph Smith, of Red Oak, Ia., has accepted an offer to serve as assistant physician with the Burlington Relief Department. His work will require much time upon the road, chiefly in Nebraska.

The January number of American Gynecology was destroyed in the fire which recently visited Baltimore. Its appearance will therefore be delayed until steps are taken to determine the future course of the journal.

Dr. Charles B. Pillsbury, one of the most prominent practitioners in Duluth, Minn., died March 1, after an illness of three weeks. An abscess in the throat, developing into blood poisoning, was the cause of his death.

Dr. M. D. Bedal, of Blair, Neb., has been adjudged insane and has been taken to the state hospital for the insane. Dr. H. Noble, of Blair, has been appointed as a member of the insanity board to take Dr. Bedal's place.

The annual meeting of the Physicians' Casualty Association was held in Omaha, Neb., February 27. The following officers were elected: President, Dr. B. F. Crummer; vice-president, Dr. D. A. Foote; secretary, E. E. Elliott.

The resignation of Dr. F. A. Dunsmoor, chief of staff of Asbury Hospital at Minneapolis, Minn., was accepted and Dr. Warren Little was elected to serve as chief pending the definite settlement as to the status of the chief of staff.

Dr. H. T. Walker, a prominent physician and surgeon of eastern Iowa, has offered his services to the Japanese government with a view to going to the front and doing all that his professional ability can to aid the Japanese army.

Dr. Spear, of Caledonia, Minn., has left for Hankinson, N. D., where he will have charge of the surgical department of a hospital during the absence of the regular physician. Dr. Spear will return to his office in Caledonia about April 1.

The quarterly meeting of the Pottawattamie County Medical Society was held at Avoca, Ia., March 1. There were a number in attendance from Council Bluffs and nearly every town in the county was represented. The next meeting will be held at Council Bluffs.

The annual meeting of the Johnson County Medical Society was held at Crab Orchard, Neb. The election of officers for the ensuing year resulted as follows: Drs. Black, Cook, president; Fitzsimmons, Tecumseh, vice-president; Chubbuck, Tecumseh, secretary-treasurer.

Book Reviews.

The Practical Medicine Series of Year-Books. Volume III —The Eye, Ear, Nose and Throat. December, 1903. The Year-Book Publishers, 40 Dearborn Street, Chicago.

The text is a review of the year's work on these subjects and fulfills the purpose of keeping our knowledge of these subjects up to date.—C. W. M. P.

The Treatment of Fractures. With Notes Upon a Few Common Dislocations. By Charles Locke Scudder, M. D. Fourth edition, thoroughly revised; with 688 illustrations. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

Perhaps no department of the general practitioner's work is more fruitful of dissatisfaction and threatened litigation than fractures. Failure of accurate diagnosis and confused ideas of treatment are largely responsible for poor results. Anesthesia and, when possible, the X-ray, should be employed in diagnosis; these together with a clear idea of the anatomy of the part involved will lead to a much larger percentage of good results.

In the volume the author explains carefully by text and illustrations the anatomy and methods of examination. He then explains fully the symptoms and treatment to be used in each case. Clinical examples are purposely omitted and theories of treatment are not discussed. This fourth edition has a chapter added on dislocations and a study of epiphysial lesions. The work cannot be too highly commended and will be of greatest assistance to every reader in his fracture work. —C. W. M. P.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, etc. By leading members of the medical profession throughout the world. Volume IV. Thirteenth Series, 1904. Price, cloth, $2, net. Pniladelphia: J. B. Lippincott Co. 1904.

Volume IV is a book of special interest to the general profession. The clinics are timely and full of interesting points. Space will not permit a complete review but some articles deserve special mention. Under the section on Treatment, Dr. Musser very ably discusses the Treatment of Lobar Pneumonia and Dr. Tyson gives the treatment of Ulcer of the Stomach. Under Medicine, Favill and Bishop discuss Diseases of the Kidneys and Dr. Watterwait gives a very interesting clinic on Frequent Pulse. The volume is closed with a chapter on the present state of our knowledge of Immunity by Dr. McFarland. The volume fully maintains the high standard of the series.—C. W. M. P.

Metabolism and Nutrition, Clinical Treatises on the Pathology and Therapy of Disorders of. By Prof. Dr. Carl von Noorden, Senior Physician to the City Hospital in Frankfurt a. M. Obesity; The Indications for Reduction Cures; The Acid Autointoxications. New York: E. B. Treat & Co. 1903.

We have formerly called attention to von Noorden's work on the diseases of Metabolism and Nutrition. They show the exhaustive study of the author and are valuable additions to our libraries. The treatise on Obesity divides the subject into two parts; obesity in otherwise healthy subjects and complicating other diseases. In treatment the author favors diet and mineral waters. The monograph on Acid Autointoxications is of special interest as no work along this line has been done in this country. The author has gone into the subject with characteristic thoroughness and he discusses numerous forms of self-poisoning which are of the greatest practical importance. These treatises are translated by Dr. Crofton and printed in a uniform and attractive style by E. B. Treat & Co.—C. W. M. P.

The American Year-Book of Medicine and Surgery for 1904. A Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A. M., M. D. In two volumes. Volume I, including General Medicine. Octavo, 673 pages, fully illustrated; Volume II, General Surgery. Octavo, 680 pages, fully illustrated. Per volume, cloth, $3, net; half morocco, $3.75, net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

The American Year-Book of Medicine and Surgery continues to maintain its high place among work of its class. With the vast amount of study that is being conducted along all lines of medicine and reported in so many different periodicals, it is impossible for the busy physician to keep abreast with the times unless he relies on general reviews. This work fills a need by giving us in convenient form all of the latest ideas and discoveries with notes and commentations by men who

are thoroughly acquainted with their subjects. A number of well-chosen plates and cuts add to the value of the work.—C. W. M. P.

BOOKS RECEIVED.

The Man Who Pleases and the Woman Who Charms. By John A. Cone. New York: Hinds & Noble, Publishers.

The Worth of Words, by Dr. Ralcy Husted Bell, with an Introduction by Dr. William Colby Cooper. Third edition, revised and enlarged. New York: Hinds & Noble, Publishers, 31-33-35 West Fifteenth Street.

Howe's Handbook of Parliamentary Usage. Arranged for the Instant Use of Legislative and Mass Meetings, Clubs and Fraternal Orders, Teachers, Students and Workingmen. By Frank William Howe. New York: Hinds & Noble, Publishers.

Biographic Clinics. Volume II—The Origin of the Ill-Health of George Eliot, George Lewes, Wagner, Parkman, Carlyle, Spencer, Whittier, Ossoli and Nietzsche. By George M. Gould, M. D. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904.

The Practical Medicine Series of Year Books. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery, Issued Monthly. Volume II—General Surgery. Edited by John B. Murphy, M. D. November, 1903. Chicago: The Year-Book Publishers, 40 Dearborn Street.

Preventive Medicine. Two Prize Essays—The General Principles of Preventive Medicine. By W. Wayne Babcock, M. D., The Medical Inspection of Schools: A Problem in Preventive Medicine. By Lewis S. Somers, M. D. Published for gratuitous distribution by The Maltine Company, Brooklyn, N. Y.

Obstetrics for Nurses. By Joseph B. De Lee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago; Lecturer in the Nurses' Training Schools of Mercy, Wesley, Provident, Cook County, and Chicago Lying-in Hospitals. 12mo. of 460 pages, fully illustrated. Price, cloth, $2.50, net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

Saunders' Medical Hand-Atlases.

Atlas and Epitome of Operative Gynecology. By Dr. O. Schaffer, of Heidelberg. Edited, with additions, by J. Clarence Webster, M. D. (Edin.), F. R. C. P. E., Professor of Obstetrics and Gynecology in Rush Medical College, in affiliation with the University of Chicago. With 42 lithographic plates in colors, many text cuts, a number in colors, and 138 pages of text. Price, cloth, $3, net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

PAMPHLETS RECEIVED.

General Surgical Anesthesia. By Ernest J. Mellish, M. D., El Paso, Tex. (Reprint from Journal A. M. A., 1903.)

The Doctor in Politics. Charles A. L. Reed, A. M., M. D., Cincinnati, O. (Reprint from Journal A. M. A., January 23, 1904.)

The Alienist and Neurologist. By J. W. Wherry, M. S., LL. M., M. D., Clarinda, Ia. (Reprint from Responsibility and Crime.)

The History and Etiology of Migraine. By George M. Gould, M. D., Philadelphia. (Reprint from Journal A. M. A., January 16 and 23, 1904.)

The Restoration of the Perineum. By Henry O. Marcy, A. M., M. D., LL. D., Boston. (Reprint from the Journal A. M. A., October 31, 1903.)

A Case of Mycosis Fungoides Treated by the X-Ray. By Albert E. Carrier, M. D., Detroit, Mich. (Reprint from Journal of Cutaneous Diseases, February, 1904.)

The Buried Animal Suture: Its Value in Aseptic Surgery. By Henry O. Marcy, A. M., M. D., LL. D., Boston. (Reprint from Dominion Medical Monthly, August, 1903.)

The Management of Smallpox in Houghton County, with Report of 288 Cases. Dr. W. H. Matchette, Houghton, Mich. (Reprint from Michigan State Journal, December, 1903.)

The Life-Study of Patients, or the Biographic and Multiple Biographic Method of Discovering Medical Truth. By George M. Gould, M. D., Philadelphia. (Reprint from American Medicine, February 6, 1904.)

Non-Operative Treatment of Acute Appendicitis by the Ochsner Method. Exclusive Rectal Alimentation. By Ernest J. Mellish, M. D., El Paso, Texas. (Reprint from Texas Medical News, January, 1903.)

Education the Fundamental Principle in the Prevention of Pulmonary Tuberculosis. By Chas. Wood Fassett, M. D., St. Joseph, Mo. (Reprint from Kansas City Medical Index-Lancet, Kansas City, Mo., January, 1902.

Third Annual Report of the Committee of Inspection Appointed by the Executive Committee of the Post-Graduate Medical School to Review the Experiments of Dr. John F. Russell in the Treatment of Pulmonary Tuberculosis at the Post-Graduate Hospital for the year 1903. (Reprint from Post-Graduate, New York, February, 1904.)

Original Articles.

THE OBJECTIONS TO CHLOROFORM.

By W. O. HENRY, M. D.,
OMAHA, NEB.

The immediate cause for writing this paper was the unfortunate death from chloroform of a young woman upon whom I was about to do a uterine dilation. She was a servant girl, in good health and vigor except for painful menstruation. She was extremely nervous when she began to take the anesthetic but soon became quiet and seemed to be doing very nicely when just as I had begun the operation, I suddenly noticed her blanched appearance, the eyes rolled up and pupils dilated. The head was quickly dropped, artificial respiration begun, the sphincters dilated, the battery used and all other means employed without avail. The heart had evidently ceased to beat first, for when artificial respiration was suspended for a moment there were efforts at respiration but no heart sounds were found at any time. Mallinkrodt's chloroform was used. After a test it is found pure.

In the early years of my practice and until about five years ago I used ether almost entirely with no untoward results; but gradually I came to use chloroform more and more until I rarely used ether. This accident, with numerous others which have taken place in Omaha during the past ten years, has led me to look up afresh the literature upon the subject and make further investigations which have fully convinced me that ether is at least five to eight times as safe, for anesthesia, as chloroform, and that the A. C. E. mixture occupies a point of safety midway between these two; while nitrous oxide gas is the safest of all anesthetics for very brief anesthesia. Still it is not applicable for ordinary surgical purposes and the above three are the ones, practically, between which we must choose. Apparently ether preceded by nitrous oxide is quite safe, easy of administration and may come to justify its more frequent use.

During the past few years, as a profession, we have been discussing so many other things that we have apparently thought but little of the anesthetic used in medicine and surgery; and the mere ease with which chloroform can be given and more time required to give ether have made us ignore the supreme factor—that of safety—and too many of us have been almost criminally guilty in that we have not sufficiently considered the best interests and welfare of the patient (that is, his life).

Morton, the dentist of Boston, who first used ether September 30, 1846, for anesthesia while extracting a tooth, also gave it for Dr. J. C. Warren on October 16 of the same year while this noted operator performed

the first surgical operation ever done under general anesthesia. Ether was first used in England in December of the same year and its use speedily became world-wide. Simpson himself used it in January, 1847, but in November of that year he discovered chloroform and read a paper before the Medico-Chirurgical Society of Edinburgh and published a pamphlet giving fifty successful administrations. The manifest apparent advantage of it over ether led it to replace the latter very quickly in many parts of the world, but in less than ninety days of its administration a death was reported from its use and others quickly followed from all parts of the world and this has been on the increase up to the present time.

The Medical Society of Lyons, as long ago as 1859, said: "Ether is less dangerous than chloroform. If the embarrassment attending the administration of ether is greater, it is still not to be compared with the positive danger inherent in the use of chloroform and consequently that the preference ought generally to be given to ether over chloroform."

Stille, in 1874, said, in speaking of it: "If a remedy is dangerous we are morally bound not to use it unless withholding it involves a greater danger still. The fact that besides the absence of all outward signs to indicate whether the patient is fit or unfit for the use of chloroform (and in some cases the fatal effect is produced by an exceedingly small dose) and that the danger bears no proportion at all, or, if any, an inverse proportion, to the severity of the operation, it must be admitted that the question whether its use as an anesthetic in surgery should be persisted in, is one of extreme gravity and which it is more than probable will ultimately be decided in the negative."

Dr. Warren said: "Ether is generally safe; chloroform can not be said to be safe in any case. No practitioner can be reasonably assured in his own mind that it will not prove fatal the next time he employs it."

It was the teaching of H. C. Wood: First, that ether in moderate doses acts as a stimulant to the circulation, yet in an overwhelming amount it is capable of depressing the heart, but that such depression of the heart is always less than the depression of the respiration and therefore ether kills always through the respiration. Secondly, that chloroform may produce death by paralysis of the respiratory center or by a simultaneous arrest of the respiration and circulation; but that primarily arrest of the heart may occur and is especially prone to do so when the chloroform vapor has been given in concentrated form."

Shoemaker says: "Chloroform is eliminated by the lungs and by the kidneys and it generally kills by heart paralysis. For all ordinary purposes ether is safer than chloroform." Professor Morgan, of Dublin, declares that "chloroform is eight times more dangerous than ether."

The first Hyderabad Chloroform Commission in 1888 conducted experiments on 140 dogs and came to the following conclusion among others: "The inhalation of chloroform vapor, no matter in what dose or in what manner carried out, can not kill a dog by acting directly upon the heart. We must invariably affect the nervous mechanism of respiration before involving the cardiac centres of the medulla oblongata or affecting the contractions of the ventricles or auricles to any extent." These conclusions were so different from previous teachings, from the report of the Glascow Committee, and from medical experience, that a second Hyderabad Chloroform Commission was appointed. In the following year therefore this committee performed 588 experiments on dogs and monkeys to show the effects of chloroform, ether and the A. C. E. mixture upon the heart, blood pressure and the respiration. The conclusions were the same as those of the first commission.

These results were unsatisfactory to a large number of men, who undertook extensive personal investigations, among whom were Wood and Hare, who decided to again study the question experimentally, and they proved conclusively that in the dog chloroform has a distinct paralyzing influence both on respiration and circulation; that the respiration may cease before the heart-beat or the two functions be simultaneously abolished, but that in some cases the heart is arrested before the respiration." Now, Wood says: "In some cases one function, in other cases the other function is primarily arrested, but that ether is less prone to produce primary arrest of the heart than chloroform."

While these experiments no doubt have their value it must not be forgotten that first they were upon lower animals not so highly constructed as man and therefore may be misleading; second, that the experiments were made upon animals probably in perfect health and therefore may not fairly represent the effect produced in the human being when taking an anesthetic for surgical purposes; third, the nervous and mental effect is very likely quite different in man from what it would be in any lower animal; fourth, while these experiments were without doubt conducted in a most scientific manner, yet, in the very nature of the case, the administration of the anesthetic to the dog for the purpose of observing its action upon him and to see how it would produce death could hardly be analogous to its administration to a human being for medical or surgical purposes, for, in the former you were trying to produce death while in the latter you were trying to keep as far away from death as possible; and in the former you were looking for and expecting it, and in the latter it came, if at all, suddenly and too often without warning; fifth, the very small number of experiments upon dogs and monkeys as compared with the great number of anesthetics given in man before any serious unpleasant symptoms appeared, much less before deaths occurred, show the inadequacy of so few experiments.

The action of anesthetics upon the kidneys has been very carefully studied by various investigators. "Legrain found albuminuria in ten out of fifty-four persons after chloroform, and in twelve out of forty-one after ether." "Popoff found occasionally transient albuminuria after ether but in 140 careful examinations after ether he saw no permanent damage, even

in those with evidence of kidney disease before the administration." "Patein noted transient albuminuria after chloroform in one-third of the cases observed."

I find in the last edition of the Reference Hand-Book of the Medical Sciences this statement: "In healthy kidneys chloroform is said to cause albuminuria more frequently than ether, while in diseased kidneys the use of ether is said to be more dangerous than chloroform. The researches of Paraspero, Theim, Fischer, Schenk and others show that both ether and chloroform, particularly in their prolonged administration, are capable of causing degeneration, inflammatory and necrotic changes in internal organs."

Leonard Hill has made a large number of valuable experiments and observations on the action of anesthetics with reference to the respiration and circulation, the results of which are indicated by the following conclusion: "Chloroform acts upon three parts of the economy. First, the heart; second, the respiratory center; third, the arterioles. By its action on the arterioles chloroform does not produce directly fatal results, but inasmuch as it dilates these it lowers the blood pressure and produces anemia of the respiratory center. This is an important factor in regard to the stoppage of the respiration. The action of chloroform upon the respiratory center is two-fold, partly indirect as we have stated and partly the direct action of chloroform itself upon the center. Arrest of respiration will be most easily produced when both these conditions of anemia and chloroform act together upon the center. If the center be much damaged by anemia far less chloroform will arrest its action than when it is well supplied with blood, and both these conditions are present during prolonged anesthesia.

"This is the explanation of death from respiratory failure after chloroform has been administered for some time; partly from the shock of operation, partly from the prolonged action of chloroform upon the heart and arterioles, the circulation through the respiratory center has been ebbing and ebbing until the center is no longer able to bear up under the degree of anemia so produced combined with the depressing effect of the amount of chloroform which happened at that moment to be administered. Thus the respiration ceases.

"But the action of chloroform upon the heart is a much more serious matter. When chloroform dilates the cavities of the heart the power required to empty them increases as the cube of their radius, yet at the same time the power of the poisoned muscle is directly diminished.

"There are thus two functions acting in the arrest of the heart. First, the distension of its cavities, and second, the direct weakening of its muscle."

Of more importance than all experiments thus far adduced is the teaching of clinical observation. The following collection of statistics by various writers is of great value:

Julliard.

	Administered.	Deaths.	Rate
Chloroform	524,507	161	1.3258
Ether	314,728	21	1.14987

Ormsby.

	Administered.	Deaths.	Rate.
Chloroform	152,260	53	1.2873
Ether	92,815	4	1.23204

St. Bartholomew's Hospital.

Chloroform	19,526	13	1.1502
Ether	8,491	3	1.2830
Ether and gas	12,491	1	1.12941

Gurlt.

Chloroform	201,224	88	1.2286
Ether	42,141	7	1.6020

It is conceded that statistics in general are more or less unreliable and particularly so upon the question of anesthesia, for even Julliard gives of his own personal knowledge twenty deaths from chloroform, only three of them reported; and Waller gives one hospital where nine deaths had occurred in one year from chloroform but only two of them had been reported. And then, too, some will say that the reported ones are only those which are the immediate result of the anesthetic, while those occurring several hours or days after, which may be due to the anesthetic, are attributed to other causes.

There is a measure of truth in this declaration; but surely, this being an unknown quantity, it is not fair to argue that this unknown quantity must equal the known. So far as the facts are known and can be actually arrived at there is no contradicting the statement that chloroform produces from three to six times as many deaths as ether does.

As to how many unknown deaths, immediate or remote, reported or not, are produced by either one or both should have no weight nor be entitled to consideration, for the simple reason that so long as they remain unknown they are practically nil and should count for nothing.

Parks says: "There has been much difference of opinion as to the relative safety of these drugs, but at present the profession is practically a unit in recognizing that ether is the less dangerous by far. On general principles ether has been preferred to chloroform whenever no contraindication to its use exists, because of its greater safety."

The International Text-Book of Surgery says: "The safest and best anesthetic yet discovered, for surgical purposes, is made from sulphuric ether and alcohol.

"The slight amount of danger to be apprehended from the ignition of ether is shown by the fact that for more than thirty years the night surgery at the Boston Hospital has been done under a chandelier not over three feet above the patient's head, and no accident of that kind has ever occurred in consequence.

"The two large hospitals in Boston have upon their records over 58,000 ether operations without a single fatality due solely to the anesthetic."

Spenzer, in the Western Reserve Medical Journal in 1894, showed that ether in a 3.5 per cent. solution can be given to dogs indefinitely without injury, where a 6 per cent. solution quickly proved fatal.

Kelly says: "Both ether and chloroform may produce a pneumonia"; and in 1800 administrations he has had it occur eight times. He had two deaths from ether

in 8,500 cases and one death from chloroform in 1,500 cases.

McNaughton-Jones says: "For ordinary gynecological operations I prefer nitrous oxide gas and ether, given with Clover's apparatus. The administration of oxygen gas in certain prolonged cases is, I consider, a great addition to the practice of anesthesia."

Garrigues says: "Ether, as the safer of the two, should be preferred where the kidneys, lungs, larynx or trachea are affected; but in patients suffering from congestion of the brain ether is the more dangerous of the two."

Hirst says: "The choice of an anesthetic depends upon the condition of each case. Chloroform acts more like ether, but is so much more powerful that it is considered treacherous and unsafe. In all major operations, when it is at all practicable, the best of all methods is the method by gas and ether."

Ashby, of Baltimore, says: "My own preferences are for chloroform in healthy subjects and in minor procedures. Where an abdominal section is to be made or a long operation is proposed, ether presents a safer and more satisfactory anesthetic. It has taken me some years of surgical work to reach the conclusion that ether is a preferable anesthetic to chloroform in a larger number of cases, and I find myself using ether more and more each year, not because I have had unfavorable results from the use of chloroform but because I have learned to place more confidence in ether."

Oschner says: "In the use of chloroform there is a considerable amount of danger at the time of its administration, and in the use of ether there is some danger from pneumonia following the recovery from the anesthetic because of the great irritation of the respiratory tract."

Reed says: "While it is true that in certain parts of this country and elsewhere chloroform is used to the exclusion of ether, it is also a fact that, taking the world at large, ether is most widely employed. The bold statement can be made without danger of correction that as a rule ether is by far the safer anesthetic of the two for the average case. Statistics which are stupendous emphasize this fact and it is as certain as anything human can be."

I recently wrote to a number of prominent operators in the United States asking for definite information as to their experience with chloroform and ether, and the answers received were quite interesting.

Professor Wyeth, of New York, says, among other things: "I use them about equally in my practice, selecting cases carefully after studying the conditions chiefly of the heart, lungs and kidneys. I have had within the last five years one death from ether and one from chloroform. The death from chloroform was in the case of a boy nine years of age, upon whom I was operating for blood poisoning. The chloroform was given with great care, I superintending its administration personally, had opened the abscess and the child was in complete narcosis about five minutes when suddenly, after the chloroform screen had been removed and without any warning whatever, the heart ceased to beat. This case has convinced me of the danger of chloroform, especially in children. I know personally of several other deaths of children under chloroform and a thorough investigation of this phase of anesthesia has convinced me that chloroform is much more dangerous in children than in adults, and is much more dangerous in children than is ether."

Professor Joseph D. Bryant, of New York, says: "The question is no longer one of doubt. Ether for general purposes is used most in this city."

Professor Senn, of Chicago, says: "Use ether in preference to chloroform, both by the drop method. Have had only one death from ether in thirty years, none from chloroform. I probably use ether nine out of ten times."

Professor Murphy says: "Have not had a death from an anesthetic of any kind in all my experience. I do not believe I have used chloroform ten times in five years. I never saw a death from chloroform. For ten years I used chloroform exclusively at the Alexian Brothers Hospital, and had no deaths from it. I favor ether as an anesthetic. I consider the drop method with ether the only method that should be used."

Dr. Jno. B. Deaver, of Philadelphia, says: "Chloroform I rarely use, and when, always myself, as I regard it a dangerous agent."

The London Lancet, which gives the report of the committee of the British Medical Association, says the report was based upon 25,920 cases carefully reported from reliable sources, and it concludes as follows: "The relative safety of the various anesthetics may be gathered from the statistical tables in the report. When only those cases of danger, which were held to be due entirely to the anesthetic are considered, the following instructive figures are obtained, further emphasizing the danger of chloroform, as contrasted with ether. Cases of danger, including deaths considered to be due entirely to the anesthetic; under chloroform 78, giving a danger rate of .582 per cent; under ether two, giving a danger rate of .065 per cent. or ether nine times as safe as chloroform.

"Chloroform is about twice as dangerous in males as in females. Chloroform is most dangerous during early infancy and after thirty years of age; least so from ten to thirty years of age. In conditions of good health chloroform is very much more dangerous than other anesthetics. When danger occurs under chloroform, whatever its exact nature may be, there is abundant evidence that in a large proportion of cases the symptoms that are observed are those of primary circulation failure. From the evidence before the subcommittee they were convinced that by far the most important factor in the administration of the anesthetic is the experience which has been acquired by the administrator."

The conclusions, then, to which it seems to me we are driven are:

1. For general anesthetic purposes ether is from five to eight times as safe as chloroform: therefore the man who uses chloroform, unless ether is contraindicated, and has a fatal result, would have difficulty in clearing himself of the charge of criminal carelessness.

2. The A. C. E. mixture is not so safe as ether but is safer than chloroform.

3. The contraindications to ether are serious lung and kidney trouble.

4. The ether should be pure, and carefully given by an experienced administrator, which every hospital at least should have.

5. Chloroform should not be given unless ether and the A. C. E. mixture are contraindicated.

6. Even children do not bear chloroform as well as they do ether.

7. As a profession we owe it to our patients and the public to insist upon ether anesthesia always, unless it is contraindicated by the brevity of the operation, when gas may be used, by lung or kidney disease.

8. It would be well for all hospitals to be provided with nitrous oxide gas, for short operations or to precede the ether, and then follow the drop method in giving the latter.

OBSERVATIONS ON OBSTETRICS IN GENERAL PRACTICE.*

BY J. F. McNULTY, M. D.,
CALLAWAY, NEB.

The art of assisting women in childbirth differs but little in general country practice from city private practice. The general practitioner is working at a disadvantage, as he is frequently called without a moment's notice, while the specialist has generally a line on his case during the whole period of gestation. The general practitioner is very frequently brought face to face with serious and alarming situations without notice, and quite often without sufficient preparation. The ability to successfully cope with what may be called emergency cases requires a cool head and rapid judgment. He must have the faculty of doing nothing at the wrong time, and the ability to act promptly at the right time. We should constantly keep in mind the fact that meddlesome midwifery is poor midwifery. We are called simply because it may become necessary to assist nature in the expulsion of the products of conception, but with the distinct understanding and hope that our efforts will not be required.

1. We may become meddlesome by rupturing the membranes too soon. Show me a man who has a record for using the forceps, who, in fact, is forced to use them often, and I will show you a man who is a chronic premature rupturer of the amniotic sac.

2. We can, and unfortunately do, become meddlesome, by introducing diseased germs into a very fine culture medium—the contents of the human uterus. By cleanliness and the strict attention to the details of antiseptic surgery much trouble may be avoided. I am now attending a case of puerperal fever where the attending physician neglected to prescribe even a carbolic acid wash. The attending physician should prepare as for a surgical operation in every instance. There should be no situation which would call for a hasty examination without first giving marked attention to the preparation of your hands. The obstetrical practitioner of to-day should always remember that he is, for the time being, at least, a surgeon when called upon to use any kind of instrument.

3. We can, and do, become meddlesome by neglect—neglect to repair a laceration immediately. The gynecologists feast upon the neglect of the obstetrical practitioner. Nine women out of ten who consult us for private trouble date their period of suffering from a particular confinement or a particular miscarriage. You have in a laceration a fresh wound. Sew it up; dress it surgically, and no trouble follows. If not sufficiently large to require a ligature, merely apply an antiseptic dressing instead of allowing it to ulcerate and become an avenue of infection.

Few persons die during an operation; few women die during delivery; but the effects resulting from operations and deliveries give us deaths by the thousands. Suppose the case of puerperal fever of which I spoke should die, or should recover and later develop pus tubes, and the removal of them cause death, where should the primary cause of death be placed?

Neglected abrasions of the vaginal mucous membrane, slight lacerations of the cervix with more or less tearing of the pelvic floor, is, I believe, the primary cause of the major portion of female complaints. We should see that the various organs after delivery are placed in the position which nature intended them to occupy. More tissue should be placed to support the uterus than just sufficient to afford covering for the contents of the rectum. We must answer for a great many prolapses, not owing to what we have done, but what we have left undone.

My old professor, Dr. Earl, of the College of Physicians and Surgeons, Chicago, was in the habit of saying: "Remember, boys, you cannot prevent a child from being born." The child will be born, as a rule, in spite of us, but it is very essential that we have at our finger tips the normal diameters of the pelvis and the fetal head; also the positions the fetal head may assume in passing through the parturient canal. These points are called the alphabet of obstetrics, and every physician should have a mental picture of the situation, no matter what position the child's head may be forced to assume. The ability to properly and accurately follow the fetal head comes by painstaking observation. How few of us endeavor to make out the various positions and mentally review the diameters while attending a case. I think it good practice to go over this old alphabet in every case, no matter how normal it may be. When we come then in contact with an abnormal situation, we at once recognize it, and can prepare to meet it promptly. If we find that natural efforts are not sufficient to meet the new situation, and artificial aid is absolutely called for, then act without delay—giving ample time for thorough preparation, however.

Offer no excuse for using forceps. When indicated use them just as you would a certain drug if indicated in a given case. I was recently obliged to use forceps in a case where the membranes had ruptured two days previous to the beginning of actual labor pains. The mother was a large, healthy and strong woman, 28

*Read before the Custer County Medical Society, Broken Bow, Neb., February 9, 1904.

years of age, this being her second child. The occiput was found to be in the left posterior position. It failed to make the turn, and remained fixed. The patient became exhausted, and the natural efforts were such that it was evident artificial aid would absolutely be required. After thorough preparation the patient was chloroformed, forceps were placed in position, and the child delivered. By removing the forceps before the fetal head has passed over the perineum we avoid the lacerations which sometimes occur when delivery takes place with the forceps in position. I believe it is not good practice to endeavor to rotate the head of fetus with forceps in position, although we are at times advised to do so. Upon making the usual call the next day I found patient to have a degree of fever. I frequently find a slight fever on second or third day, to which I pay no attention. There is a decided something between the fever of sepsis and that of exhaustion or reaction. We may do harm by ordering vaginal injections in such cases. However, when the discharge is offensive, with fever or without, I invariably use vaginal douches. If no rapid and decided improvement takes place, irrigate the uterus, and in every case inspect cervix and vagina.

There is no class of cases where symptoms vary more widely than in premature deliveries, although the cause is the same in each. If, in such cases, I find the os dilated, pain and hemorrhage, the prospect of saving the child is poor, indeed. Driving, as we do, many miles in the country to see such patients, I have made it a practice to rapidly dilate if necessary, and turn out the entire contents of the uterus. The prospect of hemorrhage following a complete operation of this character is slight. The danger in those cases comes from leaving some of the after-birth intact. Here, again, the trust-to-luck obstetrician is apt to have a sudden or remote death on his conscience.

It is very essential that we manage breech presentations with great caution. Until the breech appears in the vulva there is, as a rule, no danger to the child. But we must act quickly when the breech appears. If we have hastened labor by force, there is the danger of the head approaching the brim of the pelvis before dilatation is fully established. If dilatation is not fully established, then the labor will be most difficult. Force and haste on our part, when neither is called for, is the great difficulty in those cases. The temptation is great. Avoid it. The lower uterine segment offers the obstruction in a large majority of those cases when we are inclined to attribute the cause to a contracted pelvis. Deliver both upper extremities with the body of child. Place forearm under the body, and fingers in child's mouth and make traction on breech. Force should be exerted toward the pelvis of child to avoid fracture of the femur. I have never been obliged to place forceps on breech to aid delivery.

Let us shortly consider a few diseases that influence the course of pregnancy.

Abortion and premature labor may be caused by an attack of pneumonia. Pneumonia, during the last few month of pregnancy, is especially to be dreaded, as fully one-half the cases die. Hence our prognosis should be grave. If the mother, in such a case, is threatened with asphyxia, we are justified in causing premature delivery.

Pleurisy may cause premature delivery, but the course is not influenced by pregnancy to any great extent.

The tubercle of consumption will, if the general condition of the patient is good, remain in a latent state during pregnancy, but when the patient is debilitated the disease generally breaks out with renewed vigor. Such persons should not be permitted to nurse the child.

Autointoxication arises from sluggish action of the kidneys and liver. The earlier in pregnancy the lesion of the kidneys manifests itself, the more serious for both mother and child.

I am in the habit of sitting by the bedside in every instance and occasionally kneading the uterus—to insure contraction—for one full hour after the delivery of the placenta.

Never leave the house while the woman has a pulse of over 100. When we feel hard, firm contraction, with a steady pulse and a temperature below 100°, we may turn to our couch and sleep the sleep of sometimes profound exhaustion.

SOME OF THE MORE COMMON FORMS OF HERNIA.*

By B. B. DAVIS, A. B. M. D.,
OMAHA, NEB.,
SURGEON TO IMMANUEL AND WISE MEMORIAL HOSPITALS; PROFESSOR OF PRINCIPLES OF SURGERY AND CLINICAL SURGERY, COLLEGE OF MEDICINE, UNIVERSITY OF NEBRASKA.

The forms of hernia of which I wish to speak briefly are: (1) inguinal; (2) femoral; (3) ventral, including (*a*) umbilical, (*b*) post-operative, and (*c*) hernia in the linea alba.

Many theories have been advanced to explain the presence of hernia. None of them will fit all the cases, and it seems to me that many herniæ are the result of two or more conditions acting together. Heavy lifting as a cause cannot be considered a vital one, since there are thousands of people lifting heavy burdens every day, who have been doing so for many years, and have no hernia; while many of the cases of hernia occur in those who never did a day's work in their lives.

Persistent crying of an infant doubtless has some effect in the causation of hernia; but when we consider how many infants who cry persistently have no herniæ, and how many good-natured infants acquire the trouble, one is forced to the conclusion that some other condition must be present else the hernia would not exist.

An unusually long and pendent omentum and an abnormally long mesentery are given as causes of hernia; and yet I have seen many patients with general splanchnoptosis to such a degree that, when they were in the standing position, the shape of the abdomen resembled that of a pear with the big end down, and no hernia existed. This theory, then, must go

*Read before the Custer County Medical Society, Broken Bow, Neb., November 3, 1903.

down; at least it is not an adequate explanation for all cases.

A weak muscular development or an anatomical error in the position of the attachment of some of the abdominal muscles, seems to be one of the most convincing theories that has been promulgated. How often do we see large herniæ in the weak and muscularly poorly developed! But just as often it is found in those of exceptionally good muscular tone. A few years ago it was pointed out by Ferguson that in many cases of inguinal hernia the origins of the lower border of the internal oblique and transversalis are abnormally high, thus leaving a space between their lower borders and Poupart's ligament deficient in muscle and incapable of resisting the force from within. Under Ferguson's directions, Turck made dissections of fifty cadavers and found that the internal oblique had its origin on an average from two-thirds of Poupart's ligament, but that when hernia existed the line of origin was reduced to only the outer one-half or one-third of Poupart's ligament. I am convinced that weak and abnormal musculature of the abdominal wall is the most potent single factor in the causation of hernia. I am equally convinced that this weakness of the wall would not usually produce hernia unless other factors were present besides the abdominal weakness. I can imagine a weak part in the wall, and, if the person has a short mesentery and omentum, the organs all being in their normal locations, and the internal pressure not being increased at any time above its normal, by persistent cough, heavy strains, etc., that old age might be reached and no hernia occur.

Hernia results from a combination of conditions working together. A very great defect in the abdominal wall needs only a slight increase of internal pressure to produce a rupture. On the other hand, given a somewhat weak inguinal ring due to an abnormally short origin of the internal oblique from Poupart's ligament, the individual has a short mesentery and every time a coil of intestine reaches and begins to press at the weak point, it is stopped and diverted from its course by a pull from the short mesentery; barring the accident of an unusual strain, this person might die of old age and never have a rupture. If, instead of a short mesentery, it happened to be abnormally long, a hernia would surely occur.

Proof of this statement may be found among those who have been subjected to abdominal operations. Herniæ are found much more frequently in those suffering from gastro-enteroptosis than in any other class, and next to them are those with an abnormal amount of fat deposited within the abdominal cavity; this fat being chiefly found in the omentum, the mesentery, and the appendices apiploicæ, by its weight dragging the viscera downward, and by its bulk increasing the internal pressure.

Strong evidence of the correctness of the assertion, that a weak place in the abdominal wall is the most potent factor in the causation of hernia, is found in the exceedingly satisfactory results of the more modern operations for the various forms of hernia, relapses occurring in only a small percentage of the cases. If the cough, the strain, the long omentum and mesentery were the principal cause we would expect relapses, or the occurrence of fresh herniæ in other regions after operation, a thing that seldom happens.

Treatment.—Should the treatment of hernia always be operative, or should it always be by mechanical means if that is efficient, operation being reserved for such cases as are rebellious to mechanical treatment and to cases that have become strangulated? Several years ago, in a paper on inguinal hernia, I made the assertion that no parent has a right to start his son out in life with a hernia which has to be supported by a truss. In the sharp competition of modern life the handicap is too great. Every year more and more avenues are closed against the ruptured. The U. S. army takes none who are ruptured; mail-carriers, railroad employes, laborers for many corporations must be rupture-free. The life insurance companies most of them issue policies to those having a hernia, but they contain a clause protecting themselves against loss if death results from strangulated hernia.

I am now more than ever convinced that, not only in cases of inguinal hernia, but in the other forms under discussion, radical operation is the best treatment among all who are yet in the active period of life. In children under five years of age the probability of cure of umbilical and inguinal hernia by mechanical treatment is sufficiently great so that an effort should be made, if the contents of the sac can be returned to the abdominal cavity and retained there by a suitable truss. Even in these cases if the parents are so ignorant or careless that they cannot be relied on to carry out directions, an immediate operation is admissible. If attempt at cure by means of a truss is made, the truss should be worn at night as well as by day. In all children with irreducible herniæ, or herniæ not found easily controlled by a properly adjusted truss, and in all children who show no sign of improvement after a year's proper use of a truss, I believe radical operation is advisable. In old people, no longer active, operation is uncalled for unless strangulated or very troublesome, and in this case we must weigh the inconvenience of the hernia against the danger of the operation, and the enforced retention in bed, and judge each case on its merits.

A brief statement of some of the more important points in causation and treatment in each of the several varieties of hernia under consideration may serve to bring them before you for discussion. No attempt will be made to give an exhaustive resume, but mere mention will be made of a few observations of my own which have seemed of some importance.

Inguinal hernia, besides being more common than any other form, is more amenable to surgical cure than any other. In infants, from 65 to 85 per cent. can be cured by use of a proper truss if the truss be worn day and night. The reason that cure may be expected in infants and not in adults is an anatomical one. An infant has no inguinal canal to speak of, the deep ring being almost behind the superficial one. As the child grows and the muscles develop, the deep ring is carried outward and the inguinal canal becomes longer and

more and more oblique. If, during this developmental period, the canal is kept closed by the pressure of a truss, the anterior and posterior walls of the canal being kept in constant contact, the space for the hernial contents to come down becomes less and less and the sac is gradually obliterated. But it must be borne in mind that, while carrying out the treatment by use of the truss, it must be kept constantly adjusted, because one relapse of the hernia will neutralize months of careful treatment.

The use of a truss in adults is for retention and not for cure. Unless the truss fits perfectly and entirely prevents the rupture from coming down, it is inefficient. The greatest efficiency of the truss is secured by using a firm pad which rests over the deep ring, or over the canal very near the deep ring. If, as we so frequently observe, the pad rests over the superficial ring, the hernial contents may enter the inguinal canal and descend to the point where the pad presses, being ever ready to crowd past if the patient is subjected to a sudden strain. When the pad rests over the deep ring the hernial contents are not allowed to enter the sac at all, but are kept within the abdominal cavity out of harm's way. Another important point about a truss is that it must have a spring sufficiently strong to offer efficient resistance to the greatest strain the patient can put on it by lifting to the limit of his strength. Unless this is seen to, an unexpected strain is likely to produce a descent of the hernia with danger of strangulation. But no matter how well the truss fits, it is a nuisance; persistence of the hernia is a constant menace on account of the danger of strangulation, and the possessor is handicapped by being shut out from many avenues of activity, his earning powers being often greatly impaired.

For these reasons I am convinced that as medical men we should advise radical surgical cure in all cases not having a positive contraindication. Such advice becomes imperative in all cases of irreducible hernia, and in all cases where it cannot be efficiently controlled by a truss. In all cases of strangulation, if careful and gentle taxis does not relieve, immediate operation should be done, for it is surprising at how early a period gangrene sometimes supervenes.

Of all methods of operation, out of the long list to choose from, that of Bassini seems the best and it is the one I always do. It is simple, easily understood, and easy to do. Besides this, the percentage of recurrences is less than after any other form of operation. In performing the operation, its effectiveness will be enhanced if the operator keeps ever in mind the anatomical defect pointed out by Ferguson.

To secure the best results, it is important that certain steps of the operation be given special care: (1) The incision should be carried out fully an inch external to the deep ring; (2) after splitting the fibres of the aponeurosis of the external oblique well beyond the deep ring, this structure should be well isolated from the underlying tissues and kept out of the way by artery forceps; (3) the sac should be well separated high up and tied off flush with the peritoneum; (4) in introducing the deep sutures, care should be taken to secure a large amount of muscle from the median side which is united with the shelving edge of Poupart's ligament, being careful not to tie the sutures too tightly; (5) one suture should be introduced externally to the deep ring, for this is nearly always a weak point; (6) in suturing the aponeurosis of the external oblique it is important that all the slack should be taken up—in very large herniæ, where the aponeurosis has been much stretched and weakened, it is often best to overlap the borders; (7) and last, in order to insure firm healing of the wound, it is advisable to keep the patient in bed three weeks. By following out these precautions and a thoroughly aseptic technique the best results will be secured.

Femoral Hernia.—Coley has performed the Bassini operation for femoral hernia thirty-five times without a relapse. This seems a better showing than can be expected by the average operator, but it is certainly the surest method yet devised for this troublesome form of rupture. It is so frequently strangulated that I consider operation in this form of hernia just as imperative as in inguinal, but I do not expect as favorable a result. In the very nature of the case it seems impossible to obtain as small a percentage of relapses as in the inguinal variety.

Umbilical Hernia.—This is very often found in infants and young children and is usually cured with or without treatment, and as a rule need not concern us. The troublesome form of umbilical hernia is that which occurs in fleshy women who have borne children. Its tendency for strangulation is notorious and operation under such circumstances is always followed by a considerable mortality. Many of these herniæ are irreducible on account of adhesions forming between the hernial sac and its contained viscera. The tendency for becoming strangulated is doubtless due largely to the unyielding nature of the umbilical ring.

Until recently this form of hernia was a bugaboo to me, and I felt a good deal of hesitancy about advising an operation because of the very large percentage of relapses. But the operation of Mayo of overlapping the deep fibrous structures has completely revolutionized my attitude regarding this condition, and I now advise operation with the same assurance as in inguinal hernia. The cure is almost certain, and the technique much easier of execution than that of any of the older forms of operation. It shortens the wall between the ensiform process and the symphysis pubis, and strengthens it by a double layer of tissue where it was formerly weak.

Hernia in the linea alba, strictly speaking, is a form of ventral hernia, but has been used as a special designation because of the peculiar characteristics and symptoms so often found in hernia in this locality. I wish here more narrowly to limit the term to hernia in the linea alba above the umbilicus. Here it is often very small, so small as often to be unnoticed, and frequently characterized by an array of symptoms so formidable as to cause the greatest anxiety, and to lead to diagnosis of incurable lesions. To bring before you the ordinary type of the disability, a brief report of my last case may be of interest. A man of 45 years was

brought to me suffering with severe epigastric pain, constant but with acute exacerbations after meals. He was considerably emaciated and had been treated by various doctors for chronic gastritis, ulcer, and even the diagnosis of carcinoma of the stomach had been made. Dr. Loechner, of Benson, who brought the case to me, discovered a small tumor, not larger than the extremity of the index finger, in the linea alba about half the distance from the xiphoid cartilage to the umbilicus, and became suspicious that there was some relationship between the pain and this tumor. After eliciting his symptoms I became convinced that we had to deal with a hernia in the linea alba with dragging on the gastrocolic omentum, for this is the most frequent condition and his symptoms were very similar to other cases met with. He entered Immanuel hospital, and I operated early in October of this year. A small mass of the gastrocolic omentum was found adherent in the sac, detached and found to be that portion very near the greater curvature of the stomach and it produced constant dragging, with a stronger tug during digestion when peristalsis was going on. The aperture in the linea alba, too small to insert the tip of the little finger, was closed and he has been entirely cured of his gastric symptoms. I have seen no less than four such cases; three of them having been operated on and cured —the fourth declined operation. For several years I have carefully examined every patient complaining of epigastric pain to ascertain whether hernia in the linea alba existed. I believe that if this were made a methodical practice by all that this condition would be found much more common than generally supposed.

Post-operative hernia is very common, and its treatment is practically that of any ventral hernia, using the principle of Mayo's operation for umbilical hernia whenever practicable. Its most important treatment is preventive. It is not possible always to prevent an operation wound leaving a weak place in the ventral wall, but much depends on how the wound is made and how it is sutured. When prolonged drainage has to be used, as when suppuration exists, we have a fruitful cause of the trouble. The same may be said of accidental infection of the wound. Here the wound closes by granulations; a scar forms, at first firm and fibrous, after a few months it becomes softer, yields gradually to pressure from within and a troublesome hernia often results. In large wounds where much muscular tissue is cut, or where the nerves supplying the important muscles are destroyed, future hernia is invited. This is especially true of those with very lax abdominal walls, or with very fat walls, and more apt to occur if gastro-entero-ptosis exists, or if the individual is subject to severe cough.

In the line of prophylaxis, I have for several years been following certain principles in making and treating operative wounds in the abdominal wall. The results have been so satisfactory that the application has been extended so that the few principles are applied to practically every wound. They are as follows:

1. Never to divide a muscular fiber.
2. Never to use drainage unless absolutely necessary, and to maintain drainage for as brief a time as possible.
3. To close all wounds by tier suture, restoring the muscular, aponeurotic and peritoneal elements as perfectly as the conditions will admit.
4. To avoid important motor nerves as far as possible.
5. To maintain as nearly absolute asepsis as I am able.

OPTIC NEURITIS.

BY S. E. COOK, M. D.,
LINCOLN, NEB.

The term "optic neuritis" is not well defined as it includes several different pathological conditions of the optic nerve. There is one thing in common, however, and that is swelling of the nerve fibres with more or less congestion and protrusion of the intraocular head of the nerve as it spreads out to form the retina. Considering the fact that the optic nerve, properly speaking, is not a nerve but is really a prolongation or extension of the brain to the eyeball, we can better appreciate the connection between disorders of the optic nerve and those of the brain itself. The anatomy of the nerve and the distribution of its several constituents, is so important, that a rough outline will better enable us to understand some of the symptoms of the diseases to which it is liable.

The optic nerve extends backward from the fundus of each eye until it joins with its fellow of the opposite side, forming the optic chiasm. Here some of the fibres from each nerve cross over to the opposite side where they join the fibres of the opposite nerve that have not crossed, and passing backward, they form the optic tract to the brain cortex. The fibres of each optic tract for the most part pass to the cortex of the occipital lobe, forming Gratiolet's optic radiation. A few bundles of the fibres, however, branch off to the oculo-motor nucleus to be engaged in the mechanism of pupillary reaction.

The anatomical distribution of the nerve fibres is important and explains many of the phenomena due to cortical trouble. Each optic tract is composed of two different sets of fibres, those which decussate and supply the opposite eye and those which do not cross but pass to the eye on the same side. The fibres which do not decussate are mostly situated in the outer half of the bundle and pass forward to supply the outer and temporal half of the corresponding eye. The inner fibres cross over through the optic chiasm and supply the inner or nasal half of the retina of the opposite eye. It will be noted, therefore, that any lesion in the course of the optic tract or in the corresponding hemisphere of the brain sufficient to disturb the visual function, whether by pressure, inflammation or destruction, will be followed by homonymous hemianopsia of the opposite side, because the left side of the retina receives impressions from toward the right, and obliteration of its function always produces blindness toward the right, and vice versa. To illustrate: About three weeks ago I saw Mr. S., a prominent pro-

fessional man of an adjoining town. He came to me with a history of almost constant headache, which lasted several weeks, dating from some six weeks before. He was laid up in bed with this, and other symptoms, which his family physician called "malarial fever." After he was able to leave the house he decided to go upon a short hunting trip in order to recuperate so that he could resume his customary work. He had been camping but a short time when he began walking against trees and anything that happened to be in his way towards the left. He noticed then that something was wrong. However, he was able to use his gun almost as well as usual although his hand was not quite as steady as before. This condition persisted and when I saw him on his return from his trip, he was still unable to see anything which lay beyond the median line toward the left. His central vision was almost normal so far as acuteness was concerned, but there was complete blindness of the right half of the retina of each eye. The field of vision toward the right hand was not impaired. Ophthalmoscopic examination showed a slight congestion of the optic disks of both eyes but nothing abnormal. He was in fairly good health with the exception that his hands were not as steady as usual, but there were no evidences of any localized paralysis. This man's age was 62 years and his habits had not been at all times exemplary. He has been a hard drinker for years. In this case we can easily place the seat of trouble somewhere in the course of the optic tract or in the brain itself; and on the right side. At any rate, the seat of trouble is somewhere behind the optic chiasm. It may be the result of a hemorrhage, or perhaps a thrombus; or it may be pressure from a tumor. The pupillary reaction is maintained although that will not throw any light on the seat of the trouble. The blindness is so complete that the function of the optic tract on the right side must be entirely suspended. I am not able to say whether blindness came on gradually or suddenly. If it came on suddenly I should certainly say that it was due to a hemorrhage or thrombus. That it was fully developed when he first noticed it, would seem to indicate that it came on suddenly. If the blindness developed slowly it would indicate either a tumor or perhaps effusion within the membranes of the optic tract. Time perhaps will solve the mystery in this case. If a tumor is developing his headaches will increase and the intraocular extremity of the optic nerve will become swollen and, later on, a portion of it will undergo atrophy.

The optic nerve itself, that is, that portion between the optic chiasm and the eyeball, is divided into three portions—1, the intraocular termination usually called the papilla or optic disk; 2, the orbital portion from the eye-ball to the optic foramen; and 3, the intracranial portion from the optic foramen to the chiasm. A lesion of the optic nerve or of that portion of the visual conducting apparatus anterior to the optic chiasm will produce symptoms in the corresponding eye alone; that is, if the right optic nerve is inflamed or affected in any way, the symptoms produced will affect the right eye. So if ophthalmoscopic examination of the right eye shows a neuritis or choked disk in one eye alone, we can safely say that the trouble is somewhere in front of the chiasm. If the chiasm itself be affected, which it sometimes is, by pressure from a tumor, then we will see by noting the distribution of the fibres which decussate, that the nasal half of each retina will be alone affected. This will produce blindness, of course, in the opposite direction. That is, vision straight forward and towards the nose may remain good, but everything outside of this limited space, that is, everything on the right hand of the visual line of the right eye and to the left hand of the visual line of the left eye, will remain unseen. This is rare, but it has occurred. It is called "temporal hemianopsia." Inflammation of the optic nerve may make its appearance at any point of the nerve. It is directly visible in the eye only when the papilla, which alone is accessible to ophthalmoscopic examination, is involved. This form of neuritis is often called papillitis. When the inflammation is located in the portion of the optic nerve which is situated further back it is called retro-bulbar neuritis. When such is the case we cannot see the inflammation and must infer its existence from other symptoms. In retro-bulbar neuritis we find there are no changes to guide us within the eye-ball, or changes that are insignificant and not characteristic. There is, however, gradual or rapid failure of sight and later on there are signs of atrophy of the optic disk. Instead of the disk being full, pinkish white, and with softened outlines, it becomes a dead white, with no signs of fibrous structure, and is clear cut from the surrounding back-ground of the eye, and when once seen will always be remembered. When retro-bulbar neuritis develops slowly it is surely due to some toxic agent either developed within the blood or coming from without. It usually is due to the long continued use of alcohol or nicotine in perhaps small but constantly repeated quantities. Many cases have been reported of retro-bulbar neuritis, where the disease has developed suddenly and with fatal results to the eye, from drinking wood alcohol. This form of neuritis usually begins with atrophy of the central bundle of nerve fibres. The loss of vision is confined, at least at first, to the area which supplies direct vision. The patient may be able to make his way about with ease and celerity but be totally unable to read. He may be able to recognize his friends across the street but may not be sure of them when in his immediate vicinity. There is what is called a central scotoma of the field of vision. To illustrate: I have in mind an old gentleman who comes to visit me occasionally, who, in his early days, was an inveterate and excessive user of tobacco. For several years he has been able to read only the very coarsest of print, and when held very close to the eye, and then for a few moments only. He is unable to read the newspaper. The disorder has been developing for a number of years and is slowly getting worse. The field of vision is approximately normal and the only defect is a central one. He cannot see what he looks at but he can see everything outside of the visual line. The fundus of each eye is approximately normal but the temporal one-fourth of each optic disk, where the fibres which

supply the macula dip over the edge of the disk, is white-looking and atrophied. This is a case of tobacco amblyopia which has run its course. In general, retrobulbar neuritis affords a good prognosis in that in cases which are not too far advanced the sight can be brought back again to normal.

Papillitis, or inflammation of the optic nerve within the eyeball, may be active or passive. When active, that is, when the inflammation is real, there is a marked congestion of the disk, the color is changed to either white or grey, in parts interspersed with reddish, often mottled, areas. There are fine, white spots with extravasation, of blood. The outlines of the papilla become indistinguishable. As a result the papilla looks much larger than it really is. In fact, it sometimes seems to be four or five times larger than its natural size. The vessels of the retina are altered in size, the veins being very much larger, while the arteries may be almost obliterated and be hard to find. This is due to the swelling of the optic nerve producing pressure on the arteries, keeping the blood out of them, and pressure upon the veins holding the blood in them. The picture of a marked case of papillitis cannot be forgotten. When the retina is also involved it becomes swollen and partakes somewhat of the edematous condition of the papilla itself. The veins, on account of their swollen condition, dip beneath the surface of the retina in places and lose themselves, so that only a loop here and there may be visible. The sight may be totally or partially suspended. The pupil is usually widely dilated and is immovable. Perception of light may be lost. Of course this is in severe cases. To illustrate: About two years ago I was called to see Ann E., a girl about 17 years of age, stout, florid and robust. She had been sick for some seven or eight weeks and had suffered most of the time with constant headache. She had been treated, I believe, for the "grip." When I saw her, she was unable to see me, or locate my position. Her pupils were widely dilated. There was merely perception of light in the one eye; in the other, loss of vision seemed to be about complete. In looking into the eye, there was the most intense inflammation of the optic papilla and retina which I have ever seen. The papilla was enormously swollen. It was interspersed and covered with hemorrhages, whitish plaques, and here and there a projecting loop of a blood-vessel. The whole back-ground of the eye seemed to have lost its structure. There were hemorrhages all over. The arteries could not be found. They seemed to have entirely disappeared. The veins were enormously enlarged and disappeared beneath the swollen retina in places. The left eye was a facsimile of the right. In this case, I thought at first, owing to the persistent headaches which had lasted for a number of weeks, that I had to deal with a case of tumor of the brain. Subsequent history, however, dispelled that idea. The eyes, finally, after a number of months, cleared up, but in place of the healthy optic disk, almost complete atrophy followed and the blindness remained practically the same. The last time I saw her, which was a year after the onset of the acute symptoms, she was just able to detect light from darkness. This was a sad case and illustrates the ending of an intense form of optic neuritis. Where destruction of the optic nerve has been less, or comparatively little, atrophy may not supervene and vision be finally restored to almost normal, although there are all grades between the very mild and the very grave cases.

Choked disk is a passive condition characterized by swelling and engorgement of the optic nerve and causes very few symptoms of an active character. It is often hard, and sometimes impossible, to differentiate it from the active inflammation of the papilla.

It is due usually to pressure upon the nerve somewhere in its course and, when double, is one of the commonest symptoms of tumors of the brain. The case I have just mentioned was double and hence I suspected the brain tumor. The modus operandi of choked disk is a disputed subject, and we do not really know why pressure in the course of the optic nerve or tract, or somewhere at the base of the brain, should produce engorgement of the papilla within the eye-ball. We know, however, that almost any tumor of the brain, wherever situated, is liable to produce choked disk. It is not my intention to go into the treatment of optic neuritis but merely in this cursory sort of way give a brief description of some of the common forms of inflammation of the optic nerve.

EXOPHTHALMIC GOITER.*

BY LE ROY CRUMMER, M. D.,
OMAHA, NEB.

It is not my object to-night to present an academic discussion of exophthalmic goiter, because the ramifications of the subject are so broad that this would be practically impossible. Such a review of the subject would be of value, however, for as far as I know there is no single monograph on this subject which properly considers all the recent knowledge. Rather it is my desire to detail to you a few cases which will illustrate some of the recent advances and practical points in treatment.

The diagnosis of exophthalmic goiter is, in the main, a very easy one. When a majority of the chief symptoms are present we have a most characteristic picture; but for the sake of our patients we must go further than this and make an early diagnosis—a diagnosis before the development of the complete symptom complex. These "formes frustres" are the ones in which treatment is most beneficial, because in the vast majority we are able to prevent the development of the later and more distressing symptoms. I have made a presumptive diagnosis where a rapid heart and diarrhea were the only symptoms; in other cases a small goiter, rapid heart and tremor alone could be found. When we analyze our case's history we can generally find that previous to the appearance of distressing symptoms there was a longer or shorter period during which a diagnosis could have been made by a skilled observer. Perhaps not all such cases would have developed into true Graves' disease, but I consider it better to treat twenty suspicious cases actively

* Read before the Lancaster County Medical Society, January 12, 1904.

than to allow one case to fully develop on the expectant plan of treatment.

But as to the pathogenesis: Here we enter a beautiful field of speculation. It has been considered a disease of the sympathetic nervous system; a disease of the medulla; a disease of the sympathetic, but especially of the vasodilators; a toxemia; a post-infective thyroiditis; a condition of hypersecretion of the thyroid gland.

Believing myself in the last theory, I will state a few facts that support it:

1. The almost definite contrast to the symptoms of myxedema which we know can be caused by the absence of the thyroid.

2. The termination of the disease with the pathologic destruction of the thyroid gland and a change of symptoms to those of myxedema or osteomalacia.

3. The cures reported through surgical attack on the thyroid.

4. The production of many of the symptoms of Graves' disease for a short time by the ingestion of the thyroid gland extract.

5. The production of a Graves' disease by the use of iodine, which in combination is the active principle of the thyroid gland secretion, in cases of simple goiter. Such a case I will report later.

As to symptomatology: We have four cardial symptoms, goiter, rapid heart, exophthalmus, and a piano player's tremor. Of scarcely less importance, we have changes in the emotional nature, sweating, decreased electrical resistance of the skin, a cachexia, physical weakness, diarrhea, polyuria, and digestive disturbances.

The cases usually complain of palpitation first, and on examination the heart is found rapid, 110 to 140, and some slight enlargement of the thyroid gland. This condition with any one of the secondary symptoms justifies the diagnosis of probable Graves' disease, and calls for proper and prolonged treatment. As the case proceeds untreated, the pulse stays rapid; the goiter enlarges, though it varies in size from time to time; generally a systolic hum is to be heard over it. The eyes become more or less prominent, though the excessive degrees of exophthalmus are rare in my experience in this region. The psychic state is disturbed and the patient becomes very emotional. The physical strength diminishes, dyspnea and painful palpitation accompany effort. The patient is bathed in sweat continuously. A cachectic condition supervenes on a continuous loss of weight, and we have an acutely sick, chronic invalid on our hands. Such is the condition in which we find the majority of cases—many of whom then first consult a physician—many of whom have missed intelligent medical supervision until they are in this condition.

As to the further course: Many cases having reached any stage, may remain in a practically stationary condition for months, even years, or until death occurs from some intercurrent disease. With some the condition increases in severity. Mental symptoms present themselves in the form of acute insanities, or death may result from exhaustion. With some the condition of myxedema or osteomalacia supervenes after many years. Some cases,—and they are few, fewer than they should be,—result in a perfect cure.

Before considering treatment I wish to report two very instructive cases:

Case I.—Miss S., aged 27, nurse. Born and lived until adult life in the Michigan goiter region. Mother, one brother, and five sisters all have goiter, though none have had Graves' symptoms. Goiter appeared at 14 and showed slight increase in size continually, but never caused more than cosmetic inconvenience. At the age of 24 had diphtheria and scarlet fever, after which, for a time, pulse was rapid, and was more emotional than before. One year later consulted a physician (on account of the goiter) who prescribed potassium iodide, 10 gr. t. i. d., which was taken for six weeks. The entire symptom-complex of Graves' disease appeared. Iodide was discontinued, but the symptoms remained. Last May consulted another physician on account of the distressing symptoms, who also prescribed iodide. In thirty-six hours condition was much worse and iodide was discontinued. But there was a gradual increase in the intensity of the symptoms. On September 10 the condition of patient was as follows: Weak, unable, on account of fatigue, to continue occupation; very emotional; eyes prominent to a moderate degree, but not enough to cause the Stelwag or von Grafe symptoms; eyes easily tired; skin pale and moist; enlargement of thyroid, both lobes and isthmus; pulse 108 to 130; characteristic tremor of hand; increased perspiration; had suffered from diarrhea; weight, 126 pounds.

The patient was put on citrate of iron and quinine in combination with extract of ergot (Squibb), and improvement began at once and was continuous. On December 12 patient was seen. Pulse 72; no tremor; strength returned to normal; no longer emotional; no excessive sweating; eyes less prominent and no fatigue of eyes on reading or sewing. A symptomatic cure. Patient at present well, save the presence of goiter which causes no inconvenience.

Case II.—Mrs. C., aged 45. Lives in a limited goiter region of Iowa. Of sixty girls in high school, sixteen or eighteen have goiter. In June, 1902, noticed that neck was enlarging. Perspired very easily at this time and soon noticed that she was very emotional and easily fatigued, and had dyspnea on exertion. The eyes felt as if pushed forward. Had had no diarrhea. Nothing of importance in family history or previous personal history.

On April 7 condition as follows: Eyes prominent, but no Stelwag or von Grafe; skin moist; emaciated and cachectic in appearance. Soft goiter of both lobes and isthmus, over which a soft systolic souffle is heard; tremor pronounced; heart slightly enlarged; systolic murmur; pulse 120 to 140; tonometer 100; hemoglobin 80 per cent.; weight 110. Gave citrate of iron and quinine with ergot.

May 18, diarrhea has been severe for a month; pulse 116; tonometer 100; hemoglobin 80 per cent. On June 6 began taking milk of dethyroidectomized goat. On June 19 feels better; diarrhea relieved; walks without

dyspnea; eyes less prominent; pulse 96. July 18, pulse 90; feeling stronger; impression of general improvement. First goat having died, a second was procured and milk used about ten days. Sept. 2—Weight 115; hemoglobin 95 per cent.; pulse 84. Ergot and citrate of iron and quinine given again. Oct. 12—Pulse 84; weight 117½; slight tremor remains; goiter less in size and no murmur to be heard over it; no heart murmur; eyes no longer abnormal; has normal emotional control in spite of several severe nervous shocks.

From this time on improvement was rapid, and the present condition—pulse 72, weight 142, no tremor, no dyspnea, no fatigue, no diarrhea, no excessive sweating, perfect emotional control, with a very small enlargement of the thyroid—indicates a perfect cure.

In the treatment of Graves' disease we are confronted with a great variety of procedures—some empirical, some surgical, many based upon the numerous hypotheses of the disease, but the vast majority conceded even by their advocates to be purely symptomatic. Frequently this last form is demanded, so we may see for instance the good effect of the Mitchell rest-cure on the emotional condition and the tachycardia. The rest-cure can accomplish even more—it can arrest emaciation and bring about an increase in weight and strength and do away with the distressing symptoms of dyspnea, palpitation, dizziness and fatigue.

The surgeons have offered valuable suggestions of treatment in the various forms of surgical attack,—division of the sympathetic nerves in the neck, ligature of the thyroid vessels and partial and complete removal of the thyroid. Without going into details concerning the results from the various forms of surgical treatment, we find cures reported in less than one-third of the cases, and the mortality in the hands of even the best operators, 10 to 20 per cent., due not to the severity of the operation, but to the susceptibility of the individual with Graves' disease, to shock and anesthetics. To make a personal application, I doubt if any of us would submit to operation if we had exophthalmic goiter.

In drug treatment there has been recommended almost all the drugs in the pharmacopeia. From a recent text-book I take the following list: aconite, bromides, opium, digitalis, belladona, strophanthus, veratrum viride, arsenic and iron. In addition the author recommended galvanism. After many years of trial the Kraft Ebing clinic determined on the empirical use of a pill of ext. ergot and citrate of iron and quinine 1½ grains each—3 to 6 pills to be taken daily. Such was the only medicine exhibited in the first case I reported to-night. And I have had good results in every case in which I have used it. I could report many cases of the "formes frustres" in which the continued use of this prescription led to permanent cures.

Within the last two years there has been added to our knowledge another class of treatment which we may term specific. Some years ago Lanz, of Amsterdam, began to give his patients with Graves' disease, the milk of goats from which the thyroid had been removed. His first articles attracted little attention, but in January, last year, he reported six patients so treated with five successful results. His statement of the principles of his serotherapeutic or specific treatment is as follows:

"The sum of our knowledge of the thyroid is as follows: That in the body of an individual deprived of his thyroid by disease or operation, poisons accumulate whose destruction or neutralization is the duty of the thyroid secretion. These poisons in carnivorous animals bring about acute, generally fatal, tetany; in herbivorous, chronic cachexia; in omnivorous man, a tetany when the destruction is sudden and complete, a cachexia or cretinism when the destruction is slower, less complete or hereditary. By the artificial ingestion of thyroid substance by mouth, or in acute cases hypodermically, we are able to neutralize the poison producing the cachexia. Now, if we were able to introduce in the body of the Basedow invalid this cachexia-producing poison, and so casually give more work to the increased or physiologically altered thyroid secretion, eventually we might be able to neutralize the poison producing Basedow's disease."

Carrying out the theory, Lanz removed the thyroid gland from milk goats. This produced a cachexia, but the milk continued to be secreted in lessened amount; the milk carried with it more or less of the toxin, if we may so call it, and when the milk is taken by our patient his excessive thyroid secretion expends itself on the toxin instead of on his own tissues. This same idea has been worked out in different ways. Burghart uses such milk in dehydrated tablets under the trade name of rodagen. Mobius removes the thyroid from lambs, later kills them and uses the blood serum. He also administers the flesh of these lambs. Ballet uses the serum of dogs in the same way. These all report satisfactory results, but none so striking as the report of Lanz.

In the second case I report, I was fortunate enough to be in position to adopt this specific form of treatment. The case was a severe one—we might almost term it malignant; the cachexia was extreme and the general condition of the patient bad. I realized the difficulty of empirical treatment and was about to advise a rest-cure when, in conversation with the patient, I found that her brother had some fine milk goats and that her brother-in-law was a veterinary surgeon. During the time necessary for preparation I had her on empirical treatment, but without effect, and even for the first few weeks on the milk no improvement was to be noticed, but for ten days before the death of the goat improvement was rapid, and we concluded to try another goat. She was able to use the milk of the second goat but ten days, but the improvement in this short time was decided and continued so persistently that we did not deem it necessary to use a third goat. The improvement in this case is more remarkable because in the family there has been a series of accidents and occasions for emotional excitement and overwork, which generally have such bad effect on Basedow's cases. One sister had two serious accidents, one sister had a severe dropsy dependent on malignant disease, and one brother acute rheumatism, but our patient has

been able to nurse them all and still make the improvement reported.

The point of interest in the other case is the production of a Graves' disease, from a simple goiter, by the use of iodine. This is a point I do not see mentioned in the literature, but it was first called to my attention in 1900 in the Nothnagel clinic, where I saw several cases in which the Basedow's symptom-complex had been produced in anemic young girls with goiter by the use of iodides or even in a single external application of tincture of iodine.

While it will not do to generalize from these two cases, I think you will agree with me that even as isolated facts we can draw some conclusion from them. First, the danger of the use of iodine in simple goiter, even though its use has the authority of most textbooks. Second, that even in the most advanced cases of exophthalmic goiter there is a reasonable hope of aid in the use of this specific form of treatment; and as a final plea I urge that every case of persistent rapid heart, particularly in women and young girls, be considered as possible Graves' disease, and appropriately treated until a positive diagnosis can be made.

EXTRA-UTERINE PREGNANCY.*

By JOHN PRENTISS LORD, M. D.,

OMAHA, NEB.,

PROFESSOR OF SURGERY CREIGHTON MEDICAL COLLEGE; ATTENDING SURGEON ST. JOSEPH'S HOSPITAL, AND CONSULTING SURGEON SOUTH OMAHA HOSPITAL.

After so much has been spoken and written on the subject of exra-uterine pregnancy, there is perhaps little that I can say that will add to our common knowledge of this subject. And while ideas as expressed in our literature may be well crystallized,—and all should be abreast of these, perhaps,—yet it is a condition met with such relative infrequency by the general practitioner that its consideration becomes profitable, by keeping before us a subject which especially demands preparedness for its timely recognition, and the convictions born of preformed ideas and matured judgment, to enable the family medical adviser, or emergency physician, to meet the conditions and make possible successful issues in otherwise hopeless cases.

The discussion of the minutiæ of the subject,—anatomy, pathology, embryology, etiology, etc.,—would consume time which should be spent in consideration of the practical side; and while we all would fain be ultra-scientific, yet we are such a work-a-day, practical lot, from sheer force of circumstances, we must be content and make the most of the conditions.

Practically it matters little where a gestation sac is located, more especially if ruptured,—whether it be in the tube, ovary or broad ligament,—as long as nothing is being done to check the hemorrhage, if that calamity has already befallen the case. The checking of hemorrhage is the central idea, and with quick recognition of the symptoms, and the ability to locate it in the pelvis, there should be no hesitation as to the course to be pursued. Segond states that in extensive hemorrhage (peritoneal inundation) the necessity of a laparotomy is evident from the statistics—86 per cent. mortality with expectant treatment; 85 per cent. recoveries with an operation.

It is rare that any of us have the opportunity to make a diagnosis before rupture has taken place. But three cases are to my credit in twenty-two years' experience. But it has been encountered several times in cases operated for other conditions. This is assuming that what were formerly called hematoceles were really due to extra-uterine pregnancy. Missed menstruation, after a considerable period of sterility, especially in those with diseased or crippled tubes, should always create suspicion in the mind of the physician, in those so fortunate as to be under observation. And if these circumstances are supplemented by pains in the pelvis, and present symptoms of a tumor upon bimanual examination, these coincidences should cause the doctor to make every effort to make a positive diagnosis. If a rupture is delayed beyond the sixth week little difficulty should be experienced, especially if the subject is a favorable one for examination and observation. If persistent flowing then comes on, with pelvic symptoms, as in the following case, the way is better paved for the discovery of the true conditions in the pelvis.

Mrs. W., colored, aged 40; sterile twenty years; missed three weeks in September, 1903. Pain in pelvis. Had been previously irregular and hence thought little of it. Began flowing after third week, and attributed the conditions to change of life. Her physician, Dr. Ellis, suspicioned condition when first called, and kept her under observation for two weeks, when I was called and confirmed diagnosis, as well as the recommendation for operation. It took about one week for her to decide to accept this advice, when the large lemon-sized unruptured tubal gestation sac was removed, and the uterus curetted. She recovered.

A very similar case was operated successfully by me five years ago. I have removed several tubes in my experience—so-called hemato-salpinx. They probably had their origin in a tubal pregnancy.

The diagnosis of ectopic gestation, without complications to mask it, should not be difficult, if it is borne in mind, and we are on the alert. Unusual conditions, as we look for them, become more frequent. It is occasionally our good fortune to see them after a primary rupture, of perhaps limited extent, in which the mass is limited. It is probably a just reflection if we ever overlook, or mistake, this condition more than once; but it is an easy error, and nothing but the making of it will quicken one to the astuteness necessary to prevent its repetition.

If there is one thing more than another which the writer would like to impress upon his hearers, it is, that the history of these cases is not always typical. Some are characterized by no history of value, or one that is most misleading. Rupture usually occurs between the sixth and tenth weeks, but I have seen them when they appeared no more than three or four weeks, the collapsed gestation sac in the tube being no larger than a finger-end. There was uninterrupted menstrution in one case, and but a slight delay in another.

*Read before the Platte County Medical Society, February 16, 1904.

Yet the hemorrhage in these cases (both ruptured near the uterus) seemed as extensive as possible, short of being fatal.

In those cases where rupture has taken place and the hemorrhage is located in the cul-de-sac, or in close proximity, and well circumscribed, it may be drained through the vagina by a posterior incision. While this is admittedly preferable in selected cases, because it affords better drainage, and less liability to sepsis, a quicker convalescence, lessened risk, and a greater prospect of saving the impaired appendage, yet the friends of this procedure admit the necessity for preliminary preparation for an abdominal attack in case of uncontrollable hemorrhage. Incision of the abdomen was necessary in one of the three cases so attacked by myself.

The diagnosis of ruptured tubal pregnancy of the classical kind, with a history of antecedent sterility, missed menstruation, with collapse, shock and symptoms of hemorrhage, bogginess in the vaginal vault. pain and tenderness, is so evident that the veriest tyro in medicine should recognize it at once. The atypical cases, however, may mislead quite competent and experienced men. Even those with a large experience will confess having been misled in a case or two. The writer recalls the case of a young married woman, 23 years of age, married eight years, who had never been pregnant, and who gave a history of pelvic disease, probably gonorrheal, in whom the menstrual periods had always been irregular, the last one reported as recent. A pelvic inflammation with an acute exacerbation was diagnosed and abscess thought probable, there being a slight elevation of temperature. She had come 350 miles to consult me. A vaginal puncture revealed the true condition, and the abdominal section referred to become necessary to save her from the effects of hemorrhage. The case became a desperate one, requiring all my resources, but she ultimately recovered. She and one other were the only abdominal cases which I have found necessary to drain.

Mordecai Price says that "variety" used in connection with ectopic gestation has very little practical interest to those of us whose sole object is to save life. He further states that in the combined cases of his own, numbering 175, with those of his brother, there has been but one kind, the tubal. Mayo Robson saw one ovarian in fifty tubal cases. The cases of the Prices embraced those from the fourth week to the tenth month. This tenth month child, as well as its mother, were saved,—a rare accomplishment,—for up to recent years there were but about a dozen cases recorded in the world's experience. He therefore is unqualified in his advocacy of surgical intervention in this condition as soon as a diagnosis is made. He but voices the almost universal opinion of a profession whose rule of practice, and course of action, is governed by results obtained. There are instances of recovery from this condition without surgical intervention. Every operative surgeon will testify to removing the old remains of gestation sacs, hematoceles of the older writers, which were in reality harmless. This does not prove, however, that it is ever safe for us to delay our interference in a known case of gestation continuing outside of the uterus.

Almost universally the cases which we see are already ruptured, and demand immediate intervention to save life from hemorrhage. They are in collapse as a direct result of the hemorrhage, and the effect of the rupture, collapse or shock, which is contributed to by pressure from accumulated blood upon the abdominal sympathetics. I cannot do better than to quote again from Price, who says the urgent indication is the immediate stoppage of the hemorrhage. The only way to do this, is to open the abdomen and tie up the vessels, no matter what condition of collapse the patient is in, so she is not actually dead.

The following cases illustrate results obtained by prompt intervention and recourse to all aids at our command in interrupting a fatal issue in cases otherwise hopeless:

Mrs. S., aged 36, short and stout, sterile thirteen years. Became faint, 6 p. m. December 12, 1901, while at market. Though her home was but three blocks distant, she reached it with the greatest difficulty by the aid of her sister. During the evening she fainted repeatedly, and suffered considerable pain in her pelvis. Her physician, Dr. Wearne, administered stimulants repeatedly, and while she would rally temporarily, she steadily grew worse until I saw her at 11 a. m. the next day, when she was pulseless, with temperature 97°, cold and blanched, sighing respiration, and had fainted repeatedly, though her head had been much lowered. The diagnosis of ruptured tubal pregnancy was confirmed. Hypodermoclysis of salt solution was begun at once, and the decks cleared for action. A minimum of ether was required. She was placed upon the kitchen table, a chair producing the Trendelenburg position. Extra assistants were provided to administer, simultaneously with operation, intravenous infusion of salt solution, to which was added two ounces of whiskey. This was ordered continued until the pulse became full at the wrists. The abdomen was distended with blood which gushed out over both sides. It seemed to be as much as a gallon, but it was probably less. It was forced out by pressure over the abdomen and by hasty sponging in the pelvis. The right tube was immediately brought out and contained a distended portion near the coruna, as large as a hazel nut, where it was also ruptured. No bleeding was observed when parts were picked up. The decidua was pinched out by the thumb and finger and a ligature of catgut was placed on either side of the rent. The abdomen was hastily closed. All was done in twelve minutes, when the patient's pulse was full and strong. The Trendelenburg position was maintained for twenty-four hours after return to bed. Strychnine, atropin, and occasionally morphine, used as often as every two hours, with whiskey in hypodermoclyses of salt solution, repeated every six hours. Patient continued in a critical condition, however, and oxygen was resorted to every hour or two during the night. Artificial heat was continuously applied to the body and limbs, hot enemas were used, and heat to the head also, to stimulate circulation and prevent edema of brain. In forty-eight

hours she seemed safe, and thereafter convalesced rapidly.

Mrs. B., sterile six years, living on same street as preceding case, two blocks distant, seen with Dr. Riley, in exactly similar condition as former case, October 29, 1901, 5 p. m. Symptoms had begun in classical way at 9 a. m., when another doctor had been called who failed to recognize the condition. The usual hypodermic stimulation with morphine was given and she was sent to the hospital. Hypodermoclyses ordered given upon arrival there. Abdomen opened under ether. Conditions of circulation, temperature and distended abdomen, identical with preceding case. Intravenous infusion administered simultaneously, and was completed with operation in about ten minutes. Simple double ligation of tube was all that was done, and abdomen closed after a hasty, imperfect toilet. Patient went off table with normal pulse, and under same treatment as former case. Patient left the hospital in ten days, and has been well since. On March ninth, 1904, this patient was delivered of a very large boy. Labor normal.

Mrs. P., aged 34, slight physique, sterile three years. Had tubal trouble. Six weeks previously missed menstruation ten days; been flowing irregularly with pelvic pain and increased tenderness for three weeks. Consulted physician, who diagnosed pelvic trouble and ordered douches, etc. While shopping 9 a. m. December 16, 1903, became faint and suffered acute pain, reached home, two miles from down-town, by car with much difficulty. Had to be assisted from car to house one-half block. Another physician, Dr. Crummer, Sr., called at 3 p. m. Condition diagnosed and confirmed by Dr. Crummer, Jr., who saw her later. Operation was refused, but I was sent for at 4 p. m. Found her blanched and pulseless. Pelvic examination confirmed diagnosis. She held out against operation for another hour, pleading to defer until morning, when her mother would arrive. Patient plainly told that this would be too late. After our combined persuasive powers were almost exhausted consent was given. Hypodermoclyses given with commencement of ether by Dr. Crummer, Sr. Trendelenburg position was effected by means of chair on table. Dr. Le Roy Crummer and Dr. Rustin gave intravenous infusion whilst I opened the abdomen unassisted. The abdomen had been distended as the other cases, and was only hastily emptied of an enormous quantity of fluid blood, as in preceding cases. The ruptured right tube, with a mass of partially encysted blood-clot and decidua, was removed with the ovary, which was closely incorporated with it. Old black clots in the pelvis were not dug out. Hasty closure was done. About fifteen minutes was consumed in operation, having had little assistance. Trouble with infusion apparatus having delayed that procedure, it was used until pulse became full, which is my rule and guide. About three pints was used. Hot rectal enemas, hypodermic stimulants and all aids used. Patient went to bed with good pulse. Convalescence checkered. Gaseous distension of bowels, pain and more than usual tenderness, and carried some temperature for several days. After ten days vaginal puncture for drainage of pus was made, after which slow convalescence, but out of bed in five weeks. I think that the coincident trouble in remaining tube had something to do with complications in this case, though it was probably blood-clot, which broke down to form pus. I might have made a better toilet of the pelvis, but am chary of digging out organized adherent clots in these conditions. Had infection followed their removal at the time of operation, it might have been in the form of peritonitis, to which such exsanguinated patients are extremely susceptible, when much damage or manipulation is done. I find considerable authority for this position, which I have maintained for some years, after a costly object lesson eight years ago, which I would relate but for lack of time.

Humiston, of Cleveland, in reporting a case recites: "No attempt was made to remove the large amount of blood filling the abdomen close to the pelvic brim. The large amount of blood gave no trouble and was taken care of and absorbed by the peritoneum rapidly."

With the confidence which grows with success, the writer believes that by combating shock, as in the above cases, and relieving the heart by filling the vessels, that more time may be safely consumed in the operation, as a rule; and that there is no special advantage in leaving the blood in the abdomen, and possible harm may arise, as in the last case. He would not, however, remove extensively organized blood-clots for reasons mentioned.

Special Article.

THE SCIENTIFIC BASIS OF MIND CURE.

By SELWYN A. RUSSELL. M. D.,

POUGHKEEPSIE, N. Y.

"Thoughtless people contradict as readily the statement of perceptions as of opinions, for they do not distinguish between perception and opinion. They fancy that I choose to see this thing or that thing. But perception is not whimsical, but fatal. If I see a trait, my children will see it after me, and in course of time all mankind, though it may chance that no one has seen it before me. For my perception of it is as much a fact as the sun."—Emerson.

Being a patron of American Medicine, I have from the first felt a deep interest in its pages, and especially have the editorial columns had an attraction for me, for in them I see the editor and become acquainted with his personality, and learn his views upon the various questions of interest to the medical man. I have noticed, however, not without a degree of amusement, the effect on this most excellent journal of the literature (save the mark!) emanating from alleged mind cure sources, an effect somewhat like that of a red rag shaken at a bad-tempered bull! For, according to the editorial comments, there is in it not only no good, but it is an evil unmixed and unmitigated. Much of this alleged literature is indeed off-color, and though not exactly yellow, nor precisely blue, it may be said to combine the two.

This so-called New Thought literature really has in

it much that well might excite to wrath, laughter or tears, according to the reader's point of view. Surely the ignorance so often displayed is pitiful, the assumption ridiculous, the occasional mountebankery offensive. That most of these misguided folk are for the most part moved by good intentions cannot be doubted (it is the pretenders who are objectionably blatant), but good inteutions are not enough; knowledge is as necessary as iutegrity. The persons who write on this subject are generally such as have been cured of some diseases by mental treatment, and this single fact generally is the only one which entitles them to a hearing. They usually have made no study of the subject, properly speaking, and too often they are not students iu any sense. Hence, it is not strange that they see this single fact altogether out of focus, nor that they should have extravagant notions of its importance.

Being uien of oue idea, that single idea is in a measure wrong, for it is not correlated with other ideas, and therefore there is no perspective, no means of estimating its relative and therefore its proper value. But we must accept the initial fact of cure, the alleged facts and illogical inferences must often be either rejected or accepted with great caution. Although we are bound to reject what is false, we are under the same bonds to accept what is true, which applies as much to Christian Science as to the other forms of mind cure.

Assuming, for the sake of argument, that these folk though evidently misguided are generally honest, we may at least accept their statement as to the fact that they have been cured of something, though it may not be what they say or in the manner they describe; but these two possible errors may be due (1) to their ignorance of disease: (2) ignorance of psychology, and (3) ignorance of therapeutics. Admitting that they have been cured of something, if their explanations do not convince us of their truth we may investigate for ourselves. Their ignorance of pathology and therapeutics is more excusable than their ignorance of the English language, but at neither of these need we feel surprise or offense.

Even their alleged facts show great carelessness of observation, classification and recording, so that what they really have experienced is often most difficult to get at. But they have seen something; they have had a vision, and this vision has been to them a sort of "revelation." They regard it in that way, which is especially true of Mrs. Eddy. This "perception" of something "is as much a fact as the sun;" their whims and notions do not invade here. They have seen a fact in nature, and not being able to classify it, it has classified them. But partial as they are, they are perhaps not more so than the specialist in medicine who sees in one organ the cause and cure of all the ills that flesh is heir to.

Seeing disease actually cured by mental means is a great and significant mystery to them, is really miraculous, and they are consequently led into all sorts of extravagant and ridiculous statements. But we must handle the fact with care, and reverently, and try to discover exactly what it is and where it belongs. For facts are stubborn things, and must be reckoned with, and it matters not so much where found or how much mixed with error, it is the duty of the man of science to rescue them from bad company. As the diamond is still precious though found in the gutter, so a fact is still a divine thing, regardless of any possibly bad associations, and it is, therefore, possible that even Christian Science and other forms of mind cure may still have in their bushels of chaff some grains of genuine wheat.

It is the truth we want, and though it may be difficult to sift it out, it is not impossible, and the task may have its compensating rewards; and the task will be all the easier if we approach it without prejudice or prepossession, but with the determination to see exactly what it reveals, and to recognize and accept it notwithstanding its besmirched appearance or its seeming inconsistency with previous ideas. Truth survives all sorts of bad usage, and its best feature is that it only shines the brighter because of it. We are not in sympathy with our orthodox friends who seem to think it sacrilegious to subject what they denominate revealed truth to any test of accuracy, as if any truth were too sacred for examination or criticism. Truth may be bandied about in the most irreverent manner, or even flung away as worthless or positively harmful, but it not only survives such treatment, but seems all the more brilliant for such misuse.

> "Truth crushed to earth shall rise again;
> The eternal years of God are hers."

And so we come at last to have a great reverence and love for the truth, indeed, the honest man feels that he can safely worship at no other shrine. This love of truth makes him very jealous of it, and begets in him a desire above all things to see it justified, that it may have its deserts and prevail.

Fully aware of these general truths, and with all due deference, may we not reverently rake over what has been irreverently called the "rubbish" of Christian science in the hope of finding some compensation for our trouble? The Christian Science folk very wrongly claim that their cures are positive proof of the correctness of their theories, and all their theories. But with the same sort of reasoning we should have to admit that the cures wrought by the various other forms of mind cure (faith cure, divine science, animal magnetism, osteopathy, the water of Lourdes, etc.) are equally positive proof of the theories given in explanation of them. For all these have cures as certain and theories as positive. The scientific man, quite willing to accept the fact of cures, is equally unwilling to accept the explanations. Even Christian Science itself, while claiming the correctness of its own theories, at the same time denies the correctness of the others' theories, arrived at by the same process of reasoniug. But most of the theories formulated to explain the facts are manifestly impossible. Notwithstanding this, is there not some underlying fact or factor, unrecognized by these partialists, persons of one idea, which may rationally account for the cures? Without doubt there is.

There are several points of view from which mental treatment appears not only rational, but inevitably necessary; also from which it is equally clear that

medical treatment is not only irrational, but doomed to failure. It should be possible to make these points so clear as to leave no doubt that mind cure stands for a truth easily demonstrated by facts. If such demonstration is not possible, mind cure is without scientific basis and unworthy the study of thoughtful men.

Plato has been called great because he saw that every question has two sides, and although the present plea is for the admission of mental conditions as factors in the cause and cure of disease, I disclaim any wish to ignore physical causes or minify their importance. Excess of skepticism is as bad as excess of credulity, and the aim of this writing is to show that it is just as necessary to admit facts in the domain of mind as in that of matter. While we are not yet able to get on without medicines, which seem still to have a limited use, the more study we give to the origin of disease the more potent and far-reaching seem mental influences. The mind is the first fact and must lead, the body is secondary and must follow. Trouble begins when this order is reversed and the body is allowed to dominate. But with a sound body, perfectly obedient to the laws of nature and subject to a mind free and independent, one might naturally expect perfection of health, which means, of course, the absence of disease, and were it not for disease there would be no need of medicines.

1. Prominent among the causes of disease is that negative one, lack of resistance, and modern research teaches no more important lesson than that disease of any sort, germ diseases like others, occurs in the same measure as this resistance is lacking. It is well known that this lack is often caused primarily by mental depression and its consequent physical depression, the one being an exact measure of the other; and the general health being thus reduced, it is perfectly natural for the most vulnerable part (the point of least resistance) to show the first signs of failure. It is the weakest link which gives way first in a chain subjected to general strain. And so with the organs of the body—which for the purpose of comparison may be considered as links of a chain—it is the weakest which first shows signs of disorder during any stress on the general system. In short, mental depression causes physical depression, and physical depression means lack of natural resisting power, or susceptibility. So mental depression is remotely the cause and equivalent of susceptibility. The first cause, the cause of causes, is thus seen to be mental in these cases.

2. The effect of the mind on the body may be seen to good advantage in the delicate sensitiveness of the individual constituent cells forming the different organs, for we know that whatever affects the single cell may affect the whole organ; that is, the organ through the cell, not the cell through the organ. No one can read Prof. Mosso's book on "Fear" without arriving at the conviction that at least this emotion (fear) produces changes in the circulation and cell-nutrition that are most remarkable. A moment's reflection will make it clear how fine and delicate the influences might be, mental or physical, to operate for or against this minute organism. Bathed as it is by the fluids of the body (themselves the product of these same cells), it depends on the normal condition of these same fluids for its maintenance, growth and healthy action. Many and various are the delicate causes, in the mental sphere, of disturbed relations of these parts, which disturbance means want of harmony, and want of harmony means more or less dis—ease. And these minute organisms, according to Mosso, are affected alike by mental and by physical means.

3. An important group of mental cases are those in which certain emotions produce in the system substances of apparently poisonous nature. For example, a nursing mother, affected by violent anger, may develop in the milk secretion poisons which cause vomiting, convulsions, or actual death of the child. Medical literature gives many instances of this sort. If the milk secretion is thus affected by emotion, is it not a legitimate and necessary inference that other secretions (perhaps also excretions) are similarly affected? This has been shown by actual experiment. This being true, would not careful examination show that different organs produce different baneful substances, according to the violence of the emotion, its character, duration, etc., substances which might act injuriously on the person secreting them, causing disorder and finally disease? The inference is wholly logical and legitimate. In such cases it is evident that only mental treatment is indicated.

4. A fourth class of cases is seen in the functional disorders of different organs caused by depressing emotions, the more violent the emotion the more acute and severe the disorder. Among these emotions may be mentioned grief, fear, fright, anger, hatred, jealousy, envy, etc. How often, for example, is loss of appetite caused by violent emotion, or impairment of digestion, nausea, vomiting, perhaps diarrhea. Insomnia is a frequent result; the hair may be rendered harsh and dry, perhaps turned gray; the perspiration increased or diminished, or the saliva affected in the same way; the temperature raised (fever) or lowered (chill); headache is a common consequence; there may be palpitation of the heart, difficult breathing, etc.; the urinary secretion is often affected, and so forth. If such emotions are allowed to control the mind indefinitely, these disorders tend to become fixed, and finally result in actual disease. These emotions, with the consequent physical disorder, are so frequent and familiar illustrations of the effect of the mind on the body that it is remarkable that the far-reaching significance and the necessary inferences have not been more generally recognized, especially by medical men, who appear to have almost wholly neglected them. For it is readily seen that chronic disease may be due, and due only, to long-continued mental depression of this sort. One needs only to look about among acquaintances to discover many such cases. The patient, and too often the physician, failing to see any connection between the immaterial cause and the material effect, ascribe the disorder to something else, and therefore what might be got at and perhaps easily removed is allowed to remain, a monument to the ignorance and consequent inadequate treatment of the medical

man. Very many ailments, often of chronic character, belong to this class.

5. A fifth cause is more profound and one that affects the moral nature or the character itself, and though it may seem to some that there is no relation between moral soundness and physical soundness, it is the verdict of the ages that there is an unalterably fixed relation. But the age in which we live is given up to materialism, a devotion to material things and interests, the neglect of spiritual for physical needs and considerations. The effect of moral character on the physical health must be looked for, however, only among such as would be guided by conscience, and therefore with the idealists. To define the limits of this influence is not an easy task, and I cannot claim the qualifications necessary to do more than point out what seem the most conspicuous facts.

The soul being the first and most important fact, the care of it rightly demands one's first attention and best efforts. This is the theory, to which there are very few dissenting voices among thoughtful and well-informed men anywhere. But conviction is worthless till it converts itself into conduct and character. If a man is convinced that the soul is supreme and should govern the body and the senses, and not be governed by them, may we not naturally expect disorder and disaster first, last, middle, and all the time, when the poor soul is driven into a corner, dethroned and silenced? The question naturally occurs, is not man to a large extent misdirecting his energies and striving day and night continually for that which profiteth not? It is not a fundamental mistake to ignore the injunction of the world's greatest Teacher —"Seek ye first the Kingdom of God, and all other things shall be added"? If man is not heeding this grand injunction, and still feels the imperative necessity of doing so, is not here a source of eternal discord and dis—ease? Is he not conscientiously working at cross purposes by thus yielding obedience to the senses and silencing the voice of conscience? "The ingenuity of man has always been dedicated to the solution of one problem—how to detach the sensual sweet from the moral sweet, the sensual fair from the moral fair —to get a one end without the other end. The soul says, eat; the body would feast. The soul says, the man and woman shall be one flesh and one soul; the body would join the flesh only. The soul strives amain to live and work through all things. It would be the only fact. All things shall be added unto it—power, pleasure, knowledge, beauty."

It seems to me that the pith and essence of the Christian Science doctrine is its idealism, if one word may be used to define it. To be sure, it is a blind and ill-advised attempt to realize the ideal. But it seeks to enthrone the soul, to make it and not the body the final arbiter. And the man who has abandoned himself to this guide, and feels himself in the grip of this imminent and invincible force, has faith in it and trusts himself to it, bending himself in loving obedience to all its dictates, is in possession of, or is possessed by, a power for good that is great beyond comparison. Above all, is it a source of self-reliance and self-confidence, and consequently of health, strength, and vigor almost without limit. It acquaints man with himself and his own resources, serves to put him on his own feet, allies him with nature which, by keeping its laws, he is able to command. Everyone knows the great value of this self-confidence—coming from an infinite faith and a perfect trust in this indwelling force—which goes far toward making the man invincible.

It is not necessary here to refer to the many erroneous beliefs and the consequent absurd practices of our Christian Science friends, but aside from these and back of them is this residuum of truth which is sufficient to account for the healing of disease done by them —and to them miraculous and positive proof, as they claim, of the general correctness of their theories; but to one acquainted with psychology, neither the one nor the other. Both Christian Science and mind cure (which, unlike Christian Science, is, at its best, thoroughly rational and scientific) have too many apologists of the unscientific sort, men who evidently are not used to dealing with ideas (except in bad English), who have, most unfortunately, but one idea, and who, therefore, say many things that are both untrue and absurd. But they have had a vision—have seen a fact in nature—but as they do not understand it, they, of course, cannot rationally explain it. Hence so many extravagant claims and so many statements practically false, though made with the firm belief that they are true. What these men need is not ridicule, but information, and other ideas to balance and correct the single idea which now so overwhelms them. Not being able to classify their fact, they must submit to the mortification of being classified by it. But some allowance should be made for them. They have seen a truth at first hand, and its significance they cannot measure, so they claim everything for it, as it is easier to believe than to judge. Inclined to mysticism, they believe because they cannot understand. The greater the mystery the stronger the attraction.

On the Delphian temple were inscribed the words, "Know thyself," and no other knowledge is comparable with this. But in these days, who teaches man this knowledge? Surely not the schools, nor the church. But he learns it, if he learns at all, in God's dear school of experience, and too often learns so late in life that he can put his knowledge to little use in the betterment of himself or of others.

Finally, mental science, in its best sense, undertakes no less a task than the regeneration of the soul, for this is the necessary fundamental work. It aims to teach the man how to think, and, therefore, how to act—in short—to know himself. It braces the will (the man), teaches self-reliance and self-confidence; endeavors to unmask adversity, and to show that it is really but the prosperity of the great; that calamities are but divine instruments of training; that the ills of life may be, and should be, our schoolmasters, that they are disciplinary and educational; that depressing emotions, such as anger, hatred, envy, etc., are not to be indulged in, for the reason that they are even more harmful, both in mind and body, to the one influenced by them than to the one they are aimed against. It is a rational and logical system of getting

at the springs of action, and, therefore, whether in disorder of the mind or of the body, it seeks the cause—the first cause—and when the cause is removed the effect ceases of itself—the only reasonable mode of curing anything. It not only aims to put the man on his own feet, give him possession of himself, and acquaint him with his own sufficient resources, but also to show him how he may be able to cope with the various requirements of life. It teaches that "man is a born subject, and the service of God is perfect liberty"; that character counts, not wealth nor station; that the soul is supreme, and, therefore, in matters of doubt is the sole arbiter.—American Medicine, March 12.

Preventive Serum Treatment Against Diphtheria.—Zuppinger reviews the experiences that have been published in various countries, and appends his own. Out of 1,000 children exposed to diphtheria and treated by preventive injections of antitoxin, only eighteen developed the disease later. Of this number eleven had evidently already contracted the disease, as the symptoms developed almost at once. There were thus only seven cases in which the preventive injections failed to protect, and some of these had extenuating circumstances.—Journal A. M. A.

Nervous and Mental Diseases.

J. M. Aikin, M. D., Omaha, Neb., Department Editor.

Pathology of Toxic Brain Diseases.—Alter refers to Ceni's interesting contributions regarding the specific autocytotoxine and antiautocytotoxine which Ceni found in the blood of epileptics, and dwells on the importance of this finding. He speaks of the growing tendency to regard as the cause of certain psychoses,—as general paresis and epilepsy,—a toxic process which acts upon the nerve cells.—(Weisenburg in Journal of Nervous and Mental Diseases, Feb., 1904.)—J. M. Aikin, Omaha.

Antisyphilitic Treatment in Tabes.—(M. Faure, Jour. de Med. de Bordeaux, Aug. 16, 1903.)—Amelioration or cure of tabes by mercurial treatment has not often been reported of late, says M. Faure. On the other hand, it is well known that 60 per cent. of tabetic cases show a tendency to spontaneous arrest or regression. Investigation shows that the symptoms for which improvement is claimed through mercurial treatment are pain—which is variable and transitory—and inco-ordination, which has apparently been improved by many other therapeutic measures. The author states that the figures shown by Belugn and Gros in 2,500 cases demonstrate that there is a lower percentage of improvements and cures among those who have received antisyphilitic treatment than among those who have received no treatment; and finally, the number in whom the disease is aggravated by antisyphiltic treatment is greater than the number of those improved by that treatment. However, since improvement is seen in a certain proportion of cases from the use of mercury, the author holds that its effect should be tested; but the remedy should be withdrawn if it appear to exert an unfavorable, instead of a favorable influence. (Jelliffe in Journal of Nervous and Mental Diseases, Feb., 1904.)—J. M. Aikin, Omaha.

Clinical Experiences with Veronal.—Spielmeyer has tested this drug, which was reported by E. Fischer and J. Von Mering to be the most useful of the new class of hypnotics studied by them. Spielmeyer gives his experience of 450 doses of the drug, ranging from one-half to two grams each, in hot milk or tea, or in wafers. This experience is favorable. Sleep ensued as a rule after about half an hour; in severe insomnia, after one and one-half to two hours. Scarcely any unpleasant effects were observed,—no gastric or intestinal symptoms, and nothing to contraindicate its use in arteriosclerosis or heart disease. Jolly and Oppenheim have mentioned a kind of drunkenness or some heaviness in rare cases. Occasionally a macular rash appears. Spielmeyer concludes that veronal is a good sedative and above all one of the most valuable hypnotics.—(Journal of Nervous and Mental Diseases, Feb., 1904.)

The foregoing voices my results in six cases where I used 15 to 30 grain doses. Ten grains of veronal with 10 grains of trional, give as good results as 30 grains of either one alone.—J. M. Aikin, Omaha.

Hysteria.—The author compares the views set forth by Bernheim in "New Conception and Etiology of Hysteria," and those of Babinski in "Definition of Hysteria." Says Babinski: "The characteristic which defines hysteric manifestations is the possibility of its being reproduced by suggestion with a rigorous exactitude in certain subjects and of disappearing under the exclusive influence of persuasion." Suggestion implies something evil; persuasion that the act to be accomplished is in harmony with reality, with good sense. To say to a person in good health that his right arm is becoming paralyzed, that it is paralyzed, is to effect a suggestion, for it is intended to bring about that which to a person of sense is an unreasonable thing. On the other hand, to declare to one affected with psychic monopoly that his paralysis will disappear under the influence of his re-educated will, is to cure him by persuasion, for it is intended that he accept an idea eminently reasonable and in harmony with reality. Bernheim gives to hysteria the following definition: "An hysterical subject is one who has an hysterogenic equipment (appareil), which is well developed and easy to excite. "This substitution of the words "hysterogenic equipment" for the word "hysteric" in the hope of a definition recalls a little the definition which a physician once gave of the soporific power of opium. Of the 208 observations set forth and classified by Bernheim, there are only 32 belonging to hysteria. He claimed at this epoch not only to be able to hypnotize all the world, but also to cure affections, very diverse in character, and which he called hysterical, by suggestion. We shall not consider, one by one, the observations published in the two volumes, but we recall the words which he writes apropos of an affection classified as cerebellous, certain symptoms of which,.

and these are not trifling, were caused by magnets: "Is it not strange and almost marvelous to see so grave an affection, such complex symptoms of titubation and vertigo, dating more than seven years, which had resisted the most energetic treatment, yield in a few hours upon the application of a bit of magnetic iron?" It is astonishing that so simple a proceeding has not obtained more favor from the neurologist and also from patients. Returning to his recent work, we observe that the author has considerably modified his ideas, but we do not see that his conception is novel. The antecedent work of Babinski seems to justify its title. He offers a definition of hysteria which we believe to be new, and, besides, unassailable—a veritable "common measure." (Journal of Nervous and Mental Diseases, Feb., 1904.)—J. M. AIKIN, Omaha.

ALCOHOLISM.—According to the vital statistics bulletin of the last census the total number of deaths due to alcoholism for the census year was 2,811. But we all know that only such deaths as are directly and unmistakably attributable to this cause are so reported. If it were possible to determine the number of deaths otherwise recorded, which were in reality due to this evil, the result would be far different. Thus: 117,579 appear as due to diseases of the nervous system, 75,791 appear as due to diseases of the circulatory system, 60,229 appear as due to diseases of the digestive system, 44,941 appear as due to diseases of the urinary system (exclusive of venereal diseases), 57,513 to accidents, suicides, homicides, etc., and 40,539 to unknown causes; a total of nearly 400,000. As in the case of venereal diseases, we know that many of these deaths were due primarily, even if remotely, to indulgence in alcoholic drinks. Any estimate of this proportion would necessarily be conjectural. But if no larger than 25 per cent., without considering the many other diseases not included in these groups in which alcohol plays a casual role, we would have an annual death-rate chargeable to this vice of nearly 100,000.

In the suppression of this stupendous evil lies one of the greatest and most urgent problems of preventive medicine. The attitude of the medical profession upon the use of alcohol has long been one of endorsement, or at least tolerance. But happily this is changing. With the firmer establishment of the truth that alcohol in any quantity is a poison to the human system has come a keener realization of the duty we owe the public whose dependence we are and must continue to be for correct teaching and safe guidance in all such matters. This duty devolves upon us both as physicians and as citizens, though it is unquestionably in the former capacity that our influence will be most felt.

In conclusion, I merely mention two practical aspects of the physician's duty concerning this subject:

1. Greater circumspection in the recommending and prescribing of alcoholics.

2. A more aggressive attitude toward the advertisement and sale of that large class of patent medicines which owe their effects chiefly, if not entirely, to the alcohol they contain. The consumption of this stuff is simply enormous, and the worst feature about it is that, indiscriminately introduced into the home, these pernicious agents come to be regarded as household specifics, and the women and children become their victims. Many of the widely advertised concoctions are doubtless often responsible for the production of the very diseases they are exploited to cure.—(Quarterly Journal of Inebrity, Jan., 1904.)—J. M. AIKIN, Omaha.

Gynecology.

W. O. HENRY, M. D., Omaha, Neb., Department Editor.

FROM the February 20th number of the Journal of the American Medical Association I clip the following:

"Leucocyte Count in Gyneeology.—Dützmann reports 223 cases in which 2,000 counts were made. In ninety pus was revealed by this means when the probabilities were against its existence by other tests, even palpation in narcosis. He concludes from his experience that in cases of exudate formation with suppurative breaking down, the leucocyte count may impart invaluable information. It is also important for differentiation of suppurative and non-suppurative affections of the adnexa and also as a guide to the choice of the vaginal or abdominal route. Hyperleucocytosis in cases of myoma, carcinoma or tubal pregnancy is sometimes the only sign of an unsuspected accumulation of pus. The leucocytes do not increase in number in case of tuberculous suppuration and only slightly with gonorrheal. He found a marked hyperleucocytosis accompanying torsion of ovarian cysts with peritonitic lesions, but no pus. In sepsis the leucocyte count may sometimes possibly indicate the proper moment for intervention, as diminishing numbers show that the resisting forces are weakening. The leucocytes behave in eclampsia the same as in sepsis, which is additional testimony in favor of the assumption that it partakes of the nature of an infectious disease. The iodin reaction of the leucocytes in case of suppuration will sometimes confirm the diagnosis suggested by the leucocyte count.

"Treatment of Puerperal Fever.—Bennecke's review of recent endeavors in the treatment of puerperal fever seems to justify the attempt to save life by radical surgical intervention in the rare very severe cases. The majority, however, respond sufficiently to internal medicine, with serum treatment and various chemical-biologic measures. The prospects for the latter are becoming more and more promising.

"Staphylomata in Cervix and Uterus.—Peham's patient was a young nullipara who required repeated intervention for the removal of a number of long, grape-like, pedunculated tumors which proved to be sarcomata. Some of them grew to be as large as a child's head. She succumbed to anemia in the course of five years, at the age of 24. Keitler reports the removal of seventeen sarcomatous polyps from the body of the uterus of a woman of 54. The organ was removed later. Peham's case is illustrated and the literature reviewed.

"Prevention of Perforation in Curetting the Uterus.—Küstner describes two cases in which the omentum

had plugged and healed a perforation made by a curette. He advises dilating the organ well before attempting to curette it, which can all be done at one sitting. The curette should have a graduated scale on it so that the distance in which it is inserted in the uterus may be constantly under inspection. This is especially necessary when used after an abortion and in case of carcinoma of the corpus. When part of the ovum is still retained and the uterus is large and soft, the fingers had better be used instead of the curette. Especial care is necessary in cases that have been previously curetted by others. In case of carcinoma, perforation should be immediately followed by removal of the uterus, but under other conditions compelling intervention he opens the abdomen and sutures the perforation.

"Radical Operation in Puerperal Sepsis.—Asch has performed the radical operation in ten cases after failure of all other measures. All but three of the women recovered from their desperate condition. He reviews the various indications for radical intervention, remarking that in case of saprophytic infection the focus usually remains limited to the uterus. Such cases only exceptionally require extreme measures. In case of streptococcus infection, abdominal intervention with drainage through the vagina is justifiable in advanced stages when convinced that the organism is unable to cope with the infection unaided. Such conditions are most liable to occur after criminal abortion and detachment of the placenta. When the infection has spread and induced abscesses in the parametrium—generally in this case through some rent in the perineum—the evacuation of the abscesses through the vagina should be first tried, with removal of the uterus by the same route as a last resort. The most serious mode of propagation of the infection is by way of the circulation, inducing thrombophlebitis. The thrombosed veins should be removed with the uterus. His conclusions are based more on the findings in patients who have died unoperated, than on his surgical experience. He is convinced that some of the fatalities might have been avoided by surgical intervention even very late.

"Treatment of Puerperal Sepsis.—Rosenstein is inclined to ascribe great value to the silver salts in the treatment of puerperal sepsis. He thinks that as testimony accumulates in favor of the harmlessness of collargol we shall feel justified in injecting it still more freely and that the results will be much better. The results of treatment with nuclein combined with saline infusion, as practiced at Schauta's clinic and recently published by Hofbauer, are even more promising. Their effect is principally to attract the leucocytes, and the results were remarkably favorable. He mentions formalin injections as requiring further confirmation. In conclusion, he relates the history of a severe case with one or two chills a day and spleen much enlarged. Improvement was marked after injection of 10 gm. of a 1 per cent. solution of collargol, followed by two similar injections. Under their influence the spleen rapidly subsided to normal size. The improvement under collargol was unmistakable in this as in a number of other cases in his experience. The three injections were made in the course of eighteen days."—W. O. Henry, Omaha.

This discussion by Dr. Norris, as found in the Journal of Obstetrics and Gynecology, is important because it emphasizes a view the writer believes has received too little attention:

"Transactions of the Section on Gynecology of the College of Physicians of Philadelphia.

"Meeting of December 17, 1903. The president in the chair.

"Dr. Stricker Coles read a paper entitled 'The Immediate Repair of Lacerations After Labor.'

"Dr. R. C. Norris—It is interesting to hear Dr. Coles speak on this subject, and particularly in reference to the primary operations for laceration of the cervix. I know that a few men in the profession have come in recent years to repair injuries of the cervix immediately after labor. I have never been convinced that it is a good thing to do, either from the standpoint of obstetrics or of gynecology. From the standpoint of obstetrics, I have always been actuated by a feeling that any unnecessary handling of the puerperal woman is to her detriment. The danger of sepsis is increased tremendously by the manipulations necessary in performing a plastic operation on the cervix at this time, and especially is this true in private practice. By the closure of the cervix, drainage of the uterus, which we know is so essential to the lying-in patient, is prevented to a certain extent. Moreover it is true that many failures occur, as Dr. Coles has said, from dealing with contused, lacerated, swollen and edematous tissues. The placing of sutures in such tissue necessitates tight tying, which strangulates the tissues and may prevent union. When we operate for a deep lateral laceration with the cervix obliterated and the os dilated, the ureter may be displaced in such a manner that it may be included in the first suture. The results from a secondary operation are certain to be satisfactory. The plan never appealed to me theoretically, and I believe it is not a wise procedure. A large number of these cases of laceration heal spontaneously and never give the woman any further trouble. The injury in some cases leaves the patient with a slight degree of laceration, which I believe is a good thing in some women, for it subsequently secures good uterine drainage. Unless there is extensive laceration with serious hemorrhage, I would not attempt to repair it immediately or within a few days after labor. From every viewpoint, primary operation seems to me impracticable.

"In treating lacerations in the vagina we have a different question to deal with, and immediate union is of distinct advantage, both obstetrically and gynecologically. From an obstetrical standpoint immediate repair lessens the opportunity for absorption of septic material, and this is the one important fact. From a gynecological standpoint one can obtain almost as good results in the approximation of muscles and fascia as subsequently, and one has, besides, the involution of the structures progressing in their proper relations.

"As to the manner of applying the sutures. As Dr. Coles has said, we should attempt to approximate the torn ends of the muscle and fascia. I formerly used catgut sutures in the puerperal patient, but finally gave it up, because I did not obtain so good results and at that time could not feel the same degree of safety as now in the sterilization of the catgut; with that difficulty obviated, unless very heavy gut is used, it will not hold sufficiently long to keep the parts closely in apposition throughout the time necessary for union, and will absorb the lochial discharges, soften, and frequently become very loose. I see no disadvantage in the use of silkworm gut for all purposes, except the few stitches required in the rent of the mucous membrane of the bowel in sphincter lacerations. For the muscle in sphincter lacerations I also use silkworm, and the results have been so satisfactory I know of no reason why I should substitute catgut. I believe the average man will have great difficulty in finding and suturing separately the torn ends of the levator muscles. He often fails to find the laceration and he would surely fail to find the muscles. If the general practitioner can be taught to insert his needles deeply in the torn sulci and within the vagina, he will usually secure the ends of these muscles, and he will get better results than if he uses the buried suture, in an attempt to suture only the muscles. Unless the muscles are found and accurately apposed by these buried sutures he will not secure results which he can obtain by sutures passed deeply enough to grasp the ends of the muscles. He will probably not do the work in a strictly cleanly way, and he had better use a suture that is not entirely buried, and a suture like silkworm that can be boiled and sterilized at the time he operates. I tried in my secondary operations the use of catgut sutures for the torn ends of the sphincter after Dr. LeConte, a few years ago, read a paper advocating this method. With two or three exceptions, the only failures I have had in sphincter operations have been when I had attempted to do this. Silkworm gut is less liable to carry infection and, in my experience, is more reliable. The use of buried catgut sutures for the levator muscles in the vagina in the hands of skillful men may secure good results, and may be an advance in method."—W. O. HENRY, Omaha.

Dermatology and Genito-Urinary Diseases.

E. J. ANGLE, A. M., M. D., Lincoln, Neb., Department Editor.

VITILIGO TREATED WITH FINSEN LIGHT.—(D. W. Montgomery, The Journal of Cutaneous Diseases, Jan., 1904, p. 17.)—The writer reports a case of a man, aged 19, a full-blooded Mexican, who consulted him on account of vitiligo of six years' standing and had been steadily growing worse until patches were scattered over the entire cutaneous parts. There was one tuft of white hair in the occipital region. The white patches were surrounded by an area of accentuated pigmentation and with no subjective symptoms or desquamation present. The patient related the occurrence of this affection in other members of the family.

The routine external and internal treatment of such cases proving ineffectual, the Finsen light treatment was decided on because of its well-known stimulating effect on the skin in general and especially on the pigment. Only those spots were treated on the hands and face that were exposed to view. He had in all nine sittings; the light was applied each time ten minutes to a given spot so that a good reaction was obtained. The more recent spots about the mouth showed an improvement on the subsidence of the inflammation; the older spots, however, were more refractory to treatment and the improvement consequently slower. During the nine sittings each spot received about five treatments. The London Hospital lamp was the instrument used. In a letter from the patient six months later he reported the face entirely clear of patches and those on the hands nearly gone.

Inasmuch as vitiligo has proven one of the most stubborn and hopeless of diseases to treat, the success in this case by the Finsen light will be welcomed by the profession. Light was used in the above case because of the well-known effect upon the pigment of the skin. It is interesting to note in this connection that in a case of chlosama, a disease which in some respects may be looked upon as the direct antithesis of vitiligo, a course of treatment with the Finsen light caused an increase of pigmentation. This fact adds corroborative evidence to the efficacy of this mode of treatment in vitiligo.—E. J. ANGLE, Lincoln.

THE HYPODERMIC USE OF MERCURY IN SYPHILIS.—(S. P. Collings, The Interstate Medical Journal, vol. X, No. 11, 1903.)—This method in therapy was begun by Charles Hunter and Barclay Hill in 1856, by Hebra in 1864, Scarenzio in 1865, and perfected by Lewin in 1868. There was much unfavorable criticism at this time, and subsequently there are still many whose opinions are against the advisability of its use. Much of the unfavorable comment of to-day has been brought about by overzealous advocates, who claimed to perform quick cures or greatly shorten the length of time that the disease is treated. But in this, as in any innovation, there is first a period of extravagant claims followed by a wave of reaction, and finally by the establishment of the true value of the medicament or procedure as the case may be.

The writer does not use the insoluble salts in the injections and has never seen any of the grave results, such as pseudo-paralysis, sloughing and abscess, which are spoken by some writers as being of fairly frequent occurrence.

In general, the cases to be selected for the hypodermic injection are those in which it is necessary for the patients to be brought rapidly under the influence of mercury. This includes cases of pernicious and malignant type in which it is at times impossible to obtain results in any other manner. Cases showing rapidly destructive lesions, those in which there is danger of disfigurement or loss of function, and many cases of cerebral syphilis, especially indicate this method. Whether this method should be used in a routine manner the writer does not say.

The writer makes use of a 1 to 50 solution of the

bichloride, of which 10 minims represent one-fifth of a grain of the drug. Two per cent. of chloretone is added to the solution to render the injection less painful.

The surgeon must be governed by the effects in administering the injections, as to their frequency, amount and number given. The post-trochanteric region should be selected to give the injections, and they are given deep into the muscular tissue. The skin should be disinfected by being briskly rubbed with a piece of sterilized or carbolated gauze saturated with alcohol. The syringe most convenient to use is known as the "Sub Q" syringe. It is made entirely of glass, with an asbestos packing so that it may be frequently boiled. The needle used is a platino-iridium needle which does not corrode or rust, and should be long enough to reach deeply into the muscular tissue.—E. J. Angle, Lincoln.

Two Cases of General Gonococcal Peritonitis in Young Girls Under Puberty; One Simulating Appendicitis.—(W. P. Northrup, Archives of Pediatrics, Dec., 1903, p. 910.)—Two girls, sisters, aged 9 and 11 years, acquired vulvovaginitis, developing one week later into peritonitis. The source of infection was a female in the house, with whom each occasionally shared a bed. The girls slept together and Case B may have contracted it from Case A, or both may have acquired it from the same source. Their symptoms had the same sequence, those of Case B developing regularly one week behind Case A.

Case A.—The patient aged 11 years had been ailing one week and was under treatment for a vaginal discharge, when on the seventh day she complained of feeling quite ill, had abdominal pain, vomited once, had fever and great prostration. The pain was greatest in right iliac fossa, where she was very sensitive to pressure. At 1 o'clock her temperature was 103° F. The death-like pallor and profound prostration evidenced she was in shock.

The vulvovaginal discharge was thick, creamy, containing intracellular diplococci, decolorized by Gram's stain. A surgeon was called in consultation who considered her condition one of beginning, general peritonitis, due probably to a lesion of the appendix. An operation was decided upon and a laparotomy revealed the following: A few drams of straw-colored fluid deep in the pelvis. The peritoneum was red and the distended vessels presented a striking example of "arborescent injection." The appendix was healthy and the tubes and ovaries were not removed.

The patient recovered without incident; the discharge continued three months in all and after a year the patient is reported entirely well.

Case B.—The discharge in this case appeared one week after that of her sister's. She was kept in bed and treated symptomatically. The discharge was characteristic and contained diplococci, decolorized by Gram's stain. At the end of one week she was seized with pain in the abdomen, vomiting painful and frequent micturition; the tenderness and pain always referred to the region of the spleen. Her features were pinched and the same ghastly pallor and depression were present as in her sister's case. The temperature was above normal for three weeks. The discharge ceased after two months and an entire recovery was made.

Abrupt onset characterized both cases. Pain and tenderness, prostration and pallor were most pronounced. There were noted, also, pinched features, anxious expression, algidity, rapid thoracic respiration, painful micturition and defecation. From all recorded French cases and from the two above, one gains the impression that there is something characteristic about the picture of ghastly pallor and algidity, profound prostration and relaxation, which suddenly lays low these young girl patients. They present a picture not easily forgotten: pinched and blue; pale and relaxed; whimpering and flexed.

The author quotes eight cases reported by Comby from records of Hospital Trousseau and Hospital des Enfants Malades (Paris), all of which recovered. The author wisely suggests when a young girl presents abdominal symptoms having an abrupt beginning, examine for a vulvovaginal discharge and if the gonococcus is identified defer operation.—E. J. Angle, Lincoln.

Eye, Ear, Nose and Throat.

S. E. Cook, M. D., Lincoln, Neb., Department Editor.

Ocular Gymnastics in Insufficiency of Convergence and Exophoria.—W. L. Pyle points out (System of Physiologic Therapeutics, vol. VII) that one of the greatest causes of muscular asthenopia is insufficiency of the convergence, with or without accompanying exophoria. The prescription of proper glasses, temporary abstinence from near work, and general hygienic and tonic treatment will suffice in most cases to bring relief from the asthenopic symptoms. When, however, these measures do not afford relief, ocular gymnastics are indicated. For minor cases the "thumb or finger exercise" is of value. This consists in exercising the convergence by drawing the thumb or index-finger gradually toward the bridge of the nose, meanwhile trying to maintain a single image of the finger. The finger should be withdrawn immediately before diplopia results. This should be repeated a dozen times at each exercise, and the method should be used several times daily. The more important method is that by graduated rhythmic exercise in overcoming successively stronger prisms, bases out. Formerly prisms of 1° to 8° strength were employed. The following is the later method suggested by G. M. Gould for developing high adducting power by exercise with strong prisms: The amount of exophoria is noted, the abduction and adduction are then measured, followed by the measurement of the convergence-stimulus adduction. This is obtained by coaxing the patient to overcome as strong a pair of prisms as possible, with bases out. It will generally be found that a pair of 8° or 10° prisms is as much as can be overcome at first; but if the exophoria is not too great, it is seldom that, after a few trials, a patient cannot fuse the image of a candle flame at twenty feet (six meters) with this handicap.

The examiner should then prescribe a pair of prisms, bases out, suiting the strength to the indications, giving slightly less than the full amount of adduction power. It is of great importance to have the prism set in a well-adjusted interchangeable prism-frame. The patient is instructed to place himself twenty feet (six meters) from a flame, and endeavor to fuse the double image; if, as is usual, it is impossible for him to fuse at this distance, he must approach the flame until he gets the single image, then walk backward, keeping his gaze steadily fixed on the flame, until he reaches his starting-point. This is much more difficult for the patient than having some one withdraw the marked card from the near point to the flame; so that, whenever feasible, it is preferable to call in the assistance of a second person, particularly in the earlier days of the exercise. If the image is still single, the patient is told to hold it steadily so for about a quarter of a minute, then to raise the glasses and gaze at the flame with naked eyes for the same length of time, and repeat this ten or twenty times three times a day. At the next visit the strength of the prisms is increased and the exercise continued at home, and at each succeeding visit an addition of about 5° may be prescribed until the patient can, without the slightest trouble, overcome a pair of 25° or 30° prisms. Patients may be educated to overcome a combined prism-strength of over 100°, base out. An arrangement may be effected with an optician to hire prisms and make the necessary changes for a very moderate charge, and the patient is saved the expense of buying a whole outfit of lenses that would be useless to him after a few weeks. Exercise should be continued for some time after apparent cure, to prevent relapse.—American Medicine.

THE EFFECT OF POTASSIUM IODIDE UPON THE EYES.—That this much used and abused drug may have profound effects upon the functions of the eye is pointed out by a writer in the Medical Bulletin. The symptoms it may produce are photophobia, retinal hyperesthesia and in some cases retinal hemorrhage. Galezowski has taken the ground that the iodide ought not to be prescribed in ocular syphilis. Its action in producing dilatation of the cerebral blood-vessels with a retardation of the circulation seems to contraindicate it in cases where the eye is involved. A case occurring in the clinic of Valois in Paris illustrates the danger attending its use. The patient was not a syphilitic. A slight degree of hypermetropia was present but was corrected by glasses. She returned about a year later with a stricture of the lachrymal duct of each side. This was catheterized and injected for some time. In another year she reported for further treatment, suffering from corneal ulceration of the right eye, which was treated by the usual means. In spite of everything the ulceration extended. The cornea became necrotic and was followed by atrophy of the eyeball. Enucleation was performed. This was to neutralize any effect upon the fellow eye. Until then it was not known that the patient had been taking for three months dram doses of potassium iodide. The iodide was at once stopped and rapid improvement occurred in the fellow eye which already had been attacked by corneal infiltration and ulceration. The patient rapidly recovered although with damaged vision. This patient undoubtedly belonged to a class demanding constant watchfulness, namely those afflicted with disease of the lachrymal ducts. The writer thinks that some persons are especially prone to be affected by potassium iodide and that the cornea has its vitality lowered by the drug.—S. E. COOK, Lincoln.

Society Proceedings.

THE March meeting of the Lancaster County Medical Society was held March 8th in the rooms of the Zoological Department of the State University by invitation of Dr. H. B. Ward. The evening was given to a discussion of "Scarlet Fever," and Dr. Ward gave a demonstration of the new causative protozoan organism.

THE annual meeting of the Nebraska State Medical Association will be held in Omaha, May 3, 4 and 5. Meetings will be held in city hall, with Hotel Paxton for headquarters. More specific announcements will be published in April issue.

J. M. AIKIN,
B. B. DAVIS,
LE ROY CRUMMER,
Committee on Arrangements.

THE Saline County Medical Society met at Crete, Neb., Monday, February 29, with a very good attendance of members. Papers were read by Dr. P. F. Dodson, of Wilber, on "Dysmenorrhea"; Dr. H. W. Hewit, Friend, on "Hemorrhage after Tonsillotomy"; Dr. A. Conrad, Crete, on "Antitoxin in Diphtheria," and Dr. J. M. Brown, Friend, on "Pneumonia." Drs. J. E. Martin, Dorchester, and J. L. Brown, of Western, were elected to membership. A banquet ended the proceedings. Next meeting will be held at a grove near the center of the county on or about June 21st.

THE PLATTE COUNTY MEDICAL SOCIETY.—The third annual meeting of the Platte County Medical Society was held at Columbus, Neb., February 16, 1904. The following officers were elected: Drs. T. H. Geer, Columbus, president; Berthold Tiesing, Columbus, vice-president; J. C. McKinley, Humphrey, secretary; P. H. Metz, Humphrey, treasurer. Interesting papers were read by Drs. J. P. Lord, Omaha, and C. D. Evans, Columbus. The society unanimously passed the following resolutions:

Whereas, The old-line life insurance companies doing business in our state considered it to their interest to reduce the minimum fee for examinations from $5 to $3; and

Whereas, We consider the reduction an injustice to the medical profession and the fee not sufficient for the services required: Therefore, be it

Resolved, by the Platte County Medical Society, that the old rate of $5, as a minimum fee be restored and that our delegate to the State Association be instructed to introduce a like resolution in the House of Delegates of the State Association.

NO REVIEW

of therapeutic progress would be complete without a reference to the unique value of

GRAY'S Glycerine TONIC Comp.

in malnutrition, anæmia, respiratory disorders, nervous exhaustion, general debility.

THE PURDUE FREDERICK COMPANY,
No. 15 Murray Street, New York

1 to 50 1 to 50 1 to 50

One Part in Fifty

Germicidal

Prof. W. M. GRAY, Army Medical Museum, Washington, D. C., by a series of Experiments with inoculated beef peptone demonstrated that

TYREE'S ANTISEPTIC POWDER

is germicidal up to one part in fifty of water. Thus it is a superior Germicide and Disinfectant as well as an Antiseptic in economic proportions—hence its general utility and wide spread popularity.

Always insist upon getting original packages. Only the genuine Tyree's Powder reliable.

Literature and trial sample free.

Half-pound package postpaid, 80 cents, from prescription Druggist or direct.

J. S. TYREE, Chemist
WASHINGTON, D. C.

1 to 50 1 to 50 1 to 50

WATCH PATIENT'S WEIGHT

No progress in tubercular and neurotic cases can be expected while the patient's weight continues to decline. *Prescribe Hydroleine.* Plain cod-liver oil and ordinary emulsions fail because the patient's digestion is too much impaired to endure them.

Hydroleine is based on sound, scientific principles. It presents fat in a form easily digested and assimilated, and *fat* is what such patients need. Prescribe Hydroleine and you will get favorable results.

Literature sent on application. Sold by druggists generally.

THE CHARLES N. CRITTENTON CO.

Sole Agents for the United States,

115-117 FULTON STREET, NEW YORK.

THE BUTLER EPIDEMIC.—With the closing of the emergency hospital February 25, the typhoid epidemic at Butler, Pa., may be fairly said to have come to an end. The total number of cases during the outbreak has been about 1,364, and the number of deaths 115. A noteworthy and deplorable feature of the epidemic has been the infection of some twenty of the nurses, amounting to nearly 10 per cent. of the number employed.

SANITARY REFORMS AT MADRID.—The Spanish government has appropriated nearly half a million dollars for reforms at Madrid. The committee entrusted with the task of deciding the measures to be adopted reports in favor of establishing a disinfecting plant, repairing the pavements and improving the water-bringing plant and "East park," and devoting half the sum to the construction of three public school buildings.

JOHNS HOPKINS LOSSES.—At the annual meeting of the Johns Hopkins Hospital trustees, held March 3, it was definitely announced that John D. Rockefeller had sent an agent to investigate the needs of the hospital. Nothing definite, however, in the way of an offer of assistance was made. The announcement was made that $60,000 of the annual income of the hospital had been cut off by the fire. This is the nearest approach that can be made at present to the loss; committees have been appointed to investigate the exact figure and also the insurance. Dr. Hurd, superintendent, stated that the needs of the institution had been presented to Mr. Rockefeller by Dr. William H. Welch. Sixty-four buildings belonging to the hospital were destroyed, on which only 80 per cent. of the total amount of insurance carried can be gotten. "There is a disposition on the part of the trustees," said Dr. Hurd, "to go ahead with the work of the hospital in spite of the loss incurred." Judge Henry D. Harlan was re-elected president of the board.—Journal A. M. A.

CAUTION!

Sander & Sons' EUCALYPTOL (Eucalypti Extract)

We received quite recently the following communication from Dr W. H. Mayfield, Louisville, Ky. He says: "I have been using Eucalyptus, depending upon our drug stores, which have been furnishing me the commercial article, which is of uncertain strength, and disappoints."

To guard the high reputation our product has acquired all over the civilized globe, through the most scrupulous attention to all the details in the process of production, we repeat here once more and state again: **"That we are the sole manufacturers of Eucalyptus Essence who employ exclusively the leaves of the plant in gaining the article known as 'Sander & Sons' Eucalyptol' (Eucalypti Extract)."** In consequence it is impossible to obtain "Eucalyptol proper" (the essence of the leaves) from any other source, or the results the physician expects from any other manufacture. The application of Eucalyptol proper is so positive and distinct in results that no doubt must be entertained as to ultimate success. And if, nevertheless, disappointments be experienced, they rest with spurious articles supplied the physician in place of our product. This forms ample proof how imperative it is **"That the physician in prescribing specifies our product and insist upon receiving it."**

Our agents, Messrs. Meyer Bros. Drug Co., of St. Louis, Mo., have consented to fill, postage prepaid, orders for one original package (one ounce) on receipt of One Dollar. We beg to order from them. One test will at once convince and serve as safeguard. The difference is too striking and allows of no mistake.

Samples and literature of Sander & Sons' Eucalyptol (Eucalypti Extract) gratis, through Meyer Bros. Drug Co., St. Louis, Mo., Agents.

Sander & Sons, Bendigo, Australia

For Sale—SPLENDID OPENING; CHEAP. For particulars address "S," Western Medical Review, Lincoln, Neb.

IRITIS.

In conjunction with local treatment.

Kali iodid .....3 drams.
Tongaline .....8 ozs.

M. et ft. sol.
Sig.—A teaspoonful four times daily.

An elegant lithograph in eleven colors, of a medicine man f the Sioux Indians, has been sent to every physician n the United States by the proprietors of the Tongaline preparations and Ponca Compound. Any physician who as not received this handsome and artistic reproduction f a famous Indian chief can easily obtain such by writing or it to the Mellier Drug Company, St. Louis.

Received sample of Ecthol, and have used same on a bad ase of follicular tonsillitis with a complete cure in twelve ours. This is certainly remarkable, and am very much leased with it. At present am using it on a leg ulcer with emarkable results, and I can heartily recommend it to the rofession. H. B. Hannon, M. D.
Chicago, Ill.

In a paper "On the Medicinal Treatment of Phthisis Pulnonum" (Medicinisch-pharmaceutischer Bezirksverein, Bern, February 24, 1903) Dr. Buergi says: "Of the organic phosphorus preparations, especially the lecithins and the Glycero-Phosphates, it may be said that they are absorbed in the intestines (Bunge) and augment the albumin deposits (Danielewski). They hardly act as specifics for the tuberculosis. In any event the Glycero-Phosphates are preferable to lecithin, which is saponified in the intestines."—Abstracted from the Correspondenzblatt f. Schweizer Aerzte, August 15, 1903.

Writing on "Diabetes and Obscure Physiology," Dr. Carl Ramus, assistant surgeon in the U. S. Public Health and Marine-Hospital Service, San Francisco, says that the remarkable property of Levulose to form glycogen and diminish glycosuria can be explained as follows: Levulose is more rapidly and easily converted into alcohol than is dextrose by the pancreatic enzyme, and the reduced amount or power of the latter in diabetes is thus able to take care of considerably more Levulose than dextrose, and the liver and muscular tissues are enabled to store a certain amount of glycogen.—Abstracted from the Journal of the American Medical Association, Feb. 6, 1904.

Prof. H. Fehling, of Strassburg University, in a paper on "The Prophylaxis and Treatment of Puerperal Fever," says that operative procedure in this infection being of comparatively little use, the search for systematic remedies to neutralize the general poisoning has been unremitting. There can be no doubt that Collargolum, intravenously administered, is of value. Sterile 2 per cent. solutions were employed, 2½ to 5 drams thereof being injected with a fine needle into a vein at the elbow-bend. With a little practice this is easily done. There was never any ill effect. The results varied; some charts showed an immediate fall in pulse and temperature, sometimes a very considerable one, and it is especially noteworthy that this was always accompanied by an improvement in the patients' condition. They slept and had better appetites. When the temperature rose again, fresh injections were made, these being often administered daily for eight or ten consecutive days. A definitive fall of temperature after one injection occurred once. In some cases death occurred in spite of the injection. In others the fatal termination was postponed, as in a case of pyemia with numerous pulmonary abscesses. The remedy seems to possess the power of depressing the temperature and the pulse; and it has a certain diagnostic value in addition to its good effect upon the patient.

Fehling is decidedly of the opinion that Collargolum should be employed in the treatment of puerperal fever, though further experimentation in the clinical field is desirable.—Abstracted from the Muenchener Med. Wochenschrift, No. 33, August 18, 1903.

ANTI-RHEUMATIC.

Kali iodid .....½ oz.
Kali acetat .....1 oz.
Tongaline .....q. s. ad. 6 ozs.

M. Sig.—A teaspoonful three times a day.

Sol. et pot. tartrat.....½ oz.
Tongaline .....q. s. ad. 3 ozs.

M. Sig.—A teaspoonful three times a day.

Vapo-Cresolene

The Atmistopharmacon

FOR

WHOOPING COUGH

Rx	Vaporized Cresolene at night. Plenty of Fresh Air during the day. Much Nourishing Food.

FOR TWENTY YEARS this treatment has resulted in quick cures without complications. It insures strengthening repose while being used.

Bacteriological tests by C. J. Bartlett, M. D., of the Pathological Department of Yale University, show that vaporized Cresolene kills the germ of diphtheria. Its action is curative and prophylactic and hastens convalescence in this disease.

Cresolene is germicidal and sedative in its action on the mucous membrane. The air rendered antiseptic enters where liquid from sprays or nebulizers cannot. A 1% solution of Cresolene in water kills the germs of diphtheria, typhoid fever and pus in one minute.

The diseases in which the properties of Vapo-Cresolene have been especially utilized are whooping cough, croup, bronchitis, influenza, hay-fever, diphtheria, the bronchial complications incident to measles and scarlet fever, and in allaying the dyspnœa and irritating cough in pneumonia.

Literature on application.

We allow 25% discount from retail prices to physicians, and will prepay express charges on first order for one Vaporizer complete.

THE VAPO-CRESOLENE CO.

180 Fulton Street ....NEW YORK

The Family Laxative

THE ideal safe family laxative, known as "SYRUP OF FIGS," is a product of the California Fig Syrup Co., and derives its laxative principles from senna, made pleasant to the taste, and more acceptable to the stomach, by being combined with pleasant aromatic syrups and the juice of figs. It is recommended by many of the most eminent physicians, and used by millions of families with entire satisfaction. It has gained its great reputation with the medical profession by reason of the acknowledged skill and care exercised by the California Fig Syrup Co. in securing the laxative principles of the senna by methods of its own, and presenting them in the best and most convenient form.

The California Fig Syrup Co. has special facilities for commanding the choicest qualities of Alexandria senna, and its chemists devote their entire attention to the manufacture of the one product.

The name "SYRUP OF FIGS" means to the medical profession the "family laxative, manufactured by the California Fig Syrup Co.," and the name of the company is a guarantee of the excellence of its product.

Informed of the above facts, the careful physician will know how to prevent the dispensing of worthless imitations when he recommends or prescribes the original and genuine "SYRUP OF FIGS."

It is well known to physicians that "SYRUP OF FIGS" is a *simple*, *safe*, and *reliable* laxative, which does not irritate or debilitate the organs on which it acts, and, being pleasant to the taste, it is specially adapted to ladies and children, although generally applicable in all cases. Special investigation of the profession invited.

"SYRUP OF FIGS" is never sold in bulk. It retails at fifty cents per bottle, and the name "SYRUP OF FIGS," as well as the name of the California Fig Syrup Company, is printed on the wrappers and labels of every bottle.

CALIFORNIA FIG SYRUP COMPANY

San Francisco, Cal.; Louisville, Ky.; New York, N. Y.

Painful Monthly Periods

Many Doctors Prescribe

a combination of DIOVIBURNIA and NEUROSINE (equal parts) to abate the PAIN and NERVOUSNESS of DYSMENORRHEA. DIOVIBURNIA acting as a reconstructor of the parts affected, NEUROSINE allaying the pain, RESUSCITATING and TONING the Nervous System. Physicians can prescribe

DIOVIBURNIA and NEUROSINE

with impunity, as these products CONTAIN NO OPIUM, MORPHINE, CHLORAL, or other deleterious drugs.

Full size bottle of each, free, to physicians (who have not already received same) desirous of giving DIOVIBURNIA and NEUROSINE an impartial trial, they paying the express charges.

DIOS CHEMICAL CO., ST. LOUIS, MO.

DRAGÉES GÉLINEAU

The Dragees Gelineau constitute the most appropriate medication for the treatment of epilepsy. Their action is manifest in that peculiar neurasthenia which is neither hysteria nor hypochondria, and which prevails among women at the menstrual epoch or at the change of life.

SIRUP CELINÉAU

Whenever it is necessary to induce a beneficent sleep and to act against insomnia caused by hysteria, neurasthenia, neuralgia, convulsions, or delirium, the Sirup Gelineau will be found of supreme importance and of heroic action.

Dragees Gelineau are an antinervine agent of the most rational type, being an association of Bromide of Potassium, Arsenic and Picrotoxine. The Bromide diminishes the reflex sensibility of the nervous system, and the congestive predisposition of the cerebrum in epilepsy. The Picrotoxine has its action on the convulsive and spasmodic tendencies of neurotics, and finally the Arsenic is the repairer of the nerve cells.

GEO. J. WALLAU, U. S. Agent, - - - 2 and 4 Stone Street, New York

THERE ARE SEVERAL GOOD APERIENT WATERS;
SOME ARE BETTER THAN OTHERS;
BUT THE BEST IS ACKNOWLEDGED TO BE . . . **CARABAÑA**

At least, the Paris and Madrid Academies of Medicine and the leading American Mineral Water Authorities so declare.

CARABAÑA is the ONLY Natural Antiseptic Aperient Water.

Write for Analysis, etc., to the Sole Importer:

GEO. J. WALLAU, = = = 2 and 4 Stone Street, New York.

. . . Chicago Policlinic and Hospital . . .

Special Clinical Course in Surgery, Gynecology, Obstetrics, Dermatology, Orthopedics, Rectal and Genito-Urinary Diseases. Our regular annual special course in the above branches will begin Monday, April 11, 1904, and continue for three weeks. The work will be clinical and eminently practical, and will be supplemented by representative clinics by members of the faculty in other branches, making it of great value to the practitioner. There will be evening lectures and special work in the Anatomical and Pathological laboratories. For program and full information address

M. L. HARRIS, M. D., Secretary, 174-176 E. Chicago Avenue, CHICAGO, ILL.

LIQUID **Satyria** TABLET

The Ideal Genito-Urinary Tonic and Nerve Reconstituent

A palatable combination of the active constituents of Muira-puama, Saw Palmetto, False Bitter Sweet, Phosphorus and Aromatics.

Indicated in Prostatic Troubles, Cystitis, Urethritis, Sexual Debility and Impotency.
DOSE—One teaspoonful or one tablet four times a day after meals.
Full size bottle to physicians who will pay express charges.

Satyria Chemical Co., St. Louis, Mo., U. S. A.

A. H. Ohmann-Dumesnil, A. M., M. D., St. Louis Medical College, 1880; Member of the St. Louis Medical Society, Missouri State Medical Association, Clinico-Pathological and Mississippi Valley Medical Societies, Ex-President of the St. Louis Academy of Medical and Surgical Sciences, St. Louis, writes as follows: "I have prescribed Satyria in a number of cases of genito-urinary troubles, associated with various forms of nervous and genital asthenia, and have invariably obtained good results from its exhibition." Truly,
A. H. OHMANN-DUMESNIL.

POLK'S MEDICAL REGISTER AND DIRECTORY

(ESTABLISHED 1886.)

The only complete Medical Directory.

Its information is procured from original and official sources. The only Medical Directory having an Index to all physicians in the United States. The publishers possess the only complete list of college graduates in existence, many colleges having become extinct, and the records of others having been lost or destroyed. See that the name R. L. Polk & Co. is on the subscription order.

R.L. Polk & Co.,

Publishers,

Detroit, - - Michigan

E. J. ANGLE, A. M., M. D.

Practice Limited to { Dermatology, Syphilology, and Genito-Urinary DISEASES.

1215 O St., Lincoln, Neb.

DR. W. L. DAYTON. DR. J. P. WILLIAMS.

Doctors Dayton & Williams

PRACTICE LIMITED TO DISEASES OF
EYE, EAR, NOSE, AND THROAT.
OPHTHALMIC AND AURAL SURGEONS
TO ST. ELIZABETH'S HOSPITAL.
1205 O STREET,
LINCOLN, NEB.

A. C. STOKES, M. S.

ANALYTICAL CHEMIST

Prof. Chemistry and Toxicology, Omaha Medical College.

Urine, Stomach Contents, and Blood, Etc., Examined. Differential Diagnosis of Cancer and Ulcer. Assaying.

1107a Pacific Street, ...OMAHA.

Medical Dental Pharmacal **BOOKS**

NEW AND STANDARD

CATALOGUE FREE UPON APPLICATION

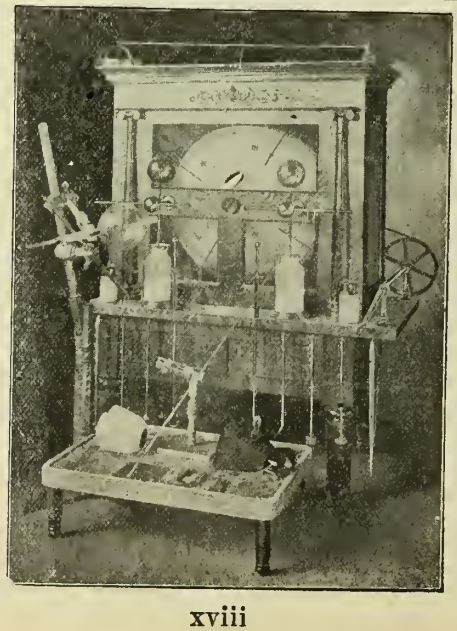
LEA BROTHERS & CO., 706-710 SANSOM STREET PHILADELPHIA

NEURILLA

SOOTHES, CALMS AND REGULATES THE NERVES.

INDISPENSABLE FOR NERVOUSNESS.
No bad effects follow its use.

DAD CHEMICAL CO., NEW YORK.



Look Before You Leap

INTO $300 TO $400 DEPTHS

Call at our factory and see how every part is made before buying. We make everything as good as skilled workmen and money can produce, and still we can sell you a

16-Plate Perfection Static and X-RAY MACHINE With $75 Worth of Accessories

ALL FOR $175 CASH

We are satisfied with a small profit on each machine.
Piano finished quarter-sawed oak case.
Sparks every day, rain or shine.
Fully guaranteed.
Send for our Bargain Bulletin—Hundreds of Bargains.

Western Surgical Instrument House

647-653 W. 59th St., CHICAGO, ILL.

Physicians' Casualty... Association

A Mutual Association of Physicians and Surgeons to Provide Accident Insurance at Actual Cost...

C. C. ALLISON, M. D., President. D. A. FOOTE, M. D., Vice-President.

.... DIRECTORS ....

B. F. CRUMMER, M. D., Omaha, Neb. R. W. CONNELL, M. D., Omaha, Neb.
F. S. OWEN, M. D., " D. C. BRYANT, M. D., "
FREDERICK RUSTIN, M. D., " V. L. TREYNOR, M. D., Council Bluffs.
ROB'T GILMORE, M. D., " C. M. SCHINDEL, M. D., South Omaha.
W. F. MILROY, M. D., "

OF, BY, AND FOR PHYSICIANS

NO PROFITS to anyone. Applications for Membership have been received from thirty-two States and Canada.

$25 WEEKLY COSTS ABOUT $3 QUARTERLY

For Particulars address E. E. ELLIOTT, Secretary,
38-39 U. S. National Bank Building, OMAHA, NEBRASKA.

SANMETTO FOR GENITO-URINARY DISEASES.

A Scientific Blending of True Santal and Saw Palmetto in a Pleasant Aromatic Vehicle.

A Vitalizing Tonic to the Reproductive System.

SPECIALLY VALUABLE IN
PROSTATIC TROUBLES OF OLD MEN—IRRITABLE BLADDER—
CYSTITIS—URETHRITIS—PRE-SENILITY.

DOSE:—One Teaspoonful Four Times a Day. OD CHEM. CO., NEW YORK.

RIO TRADE MARK

Women suffering from an Aching Back, Bearing Down Abdominal Pains, or any abnormal condition of the Uterine system, should be given ALETRIS CORDIAL RIO in teaspoonful doses four times a day.

Rio Chemical Co., New York.

CHEMICAL

DAD

Sound sleep is impossible if patient is nervous.
Neurilla restores the Nerves to their normal Vigor.

CO.

NEWYORK — PARIS

EXERCISES A TONIC INFLUENCE ON THE PELVIC ORGANS

EXERCISES AN ALTERATIVE ACTION ON THE UTERINE TISSUES

MAILED TO PHYSICIANS ON RECEIPT OF $ 1.00

RELIEVES CONGESTIONS. ENCOURAGES PERISTALSIS
REMOVES SPASMODIC CONDITIONS.
REGULATES THE VASCULAR SUPPLY.

THE UTERINE TONIC ALTERATIVE

FOR ALL FUNCTIONAL UTERINE AND OVARIAN DISORDERS

SAMPLES AND LITERATURE ON APPLICATION MELLIER DRUG COMPANY, ST. LOUIS.

The Winkley Artificial Limb Co.

JEPSON BROS., (Sole Owners) Incorporated under the Laws of the State of Minnesota

Largest Manufactory of Artificial Legs in the World

Manufacturers of the Latest Improved Patent Adjustable Double Slip Socket

Artificial Leg

With SPONGE RUBBER Mexican Felt or English Willow FOOT

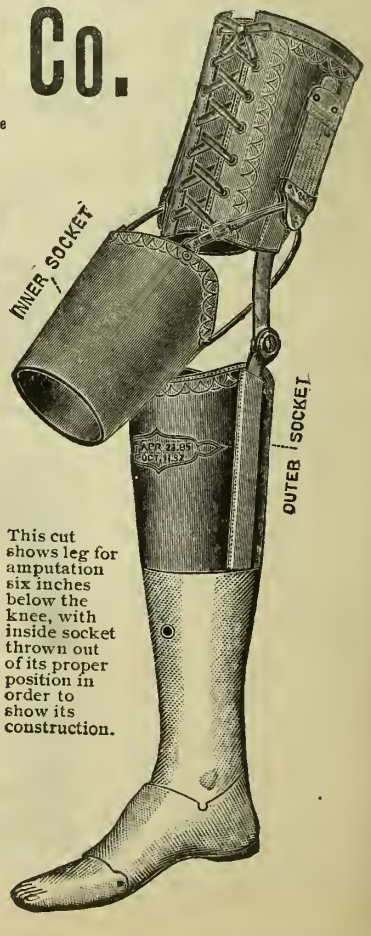
Both legs amputated five inches below the knee.

Warranted not to Chafe the Stump

PERFECT FIT GUARANTEED

From Casts and Measurements WITHOUT LEAVING HOME.....

Thousands of our Slip Socket Legs now being worn. U. S. Government Manufacturers.



This cut shows leg for amputation six inches below the knee, with inside socket thrown out of its proper position in order to show its construction.

☞ **This is the Leg that is being recommended and ordered by so many of the leading physicians and surgeons.**

Send for our Large New Illustrated Catalogue

MINNEAPOLIS, MINN., U. S. A.

Nebraska State Medical Association meets at Omaha, May 3, 4, 5, 1904.

WESTERN

MEDICAL REVIEW.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY PUBLISHED BY WESTERN MEDICAL REVIEW CO.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members. For officers and committees see advertisement page viii.

VOL. IX, No. 4. LINCOLN, NEBRASKA, APRIL 15, 1904. $2.00 PER ANNUM

CONTENTS.

EDITORIAL 83

NOTES AND NEWS 85

BOOK REVIEWS 86

ORIGINAL ARTICLES.

Typhoid Fever. By D. S. HOGAN, M. D., North Loup, Neb. 88

Pyrexia: A Physiological Process. By W. B. ELY, M. D., University Place, Neb. 89

Colostomy: Technique of Operation and Results. By R. D. MASON, M. D., Omaha, Neb. 96

Health as a Duty. By E. BENJ. ANDREWS, Chancellor of the University of Nebraska, Lincoln, Neb. 97

SPECIAL ARTICLE.

A Case of Neuritis of the Brachial Plexus, with Autopsy. By W. E. TAYLOR, M. D., Cleveland, Ohio. 102

GENERAL MEDICINE 104

SURGERY 105

NERVOUS AND MENTAL DISEASES 106

GYNECOLOGY 107

DERMATOLOGY AND GENITO-URINARY DISEASES 108

SOCIETY PROCEEDINGS 110

A PHYSICIAN'S PRACTICAL GYNECOLOGY.

OFFICE TREATMENT OF RECTAL DISEASES.

THE REVIEW PRESS,

1134 N St., LINCOLN, NEB.

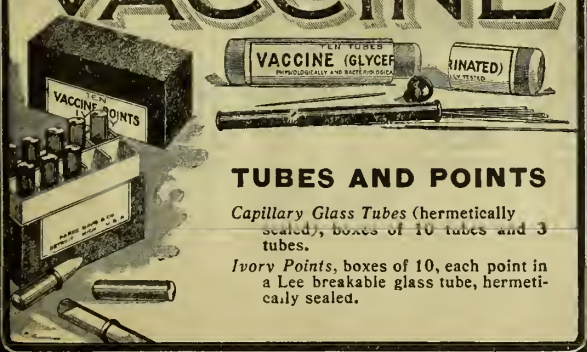
ANTIDIPHTHERITIC SERUM

BULB-SYRINGE CONTAINER (STYLE A)

THESE
READY-TO-USE
BULB AND PISTON SYRINGES
ARE STRICTLY ASEPTIC
AND EASILY OPERATED.

PISTON-SYRINGE CONTAINER (STYLE C)

VACCINE



TUBES AND POINTS

Capillary Glass Tubes (hermetically sealed), boxes of 10 tubes and 3 tubes.

Ivory Points, boxes of 10, each point in a Lee breakable glass tube, hermetically sealed.

PARKE, DAVIS & CO.'S

ANTIDIPHTHERITIC SERUM

AND

VACCINE VIRUS

are prepared with extraordinary care.

Their potency and safety are established by rigid bacteriologic and physiologic tests.

They are supplied in hermetically sealed glass containers, effectually preventing contamination.

NO GUESSWORK WHEN YOU USE OUR SERUM AND VACCINE.

PARKE, DAVIS & CO.

LABORATORIES:

DETROIT, MICH., U.S.A.; WALKERVILLE, ONT.; HOUNSLOW, ENG.

BRANCHES:

NEW YORK, CHICAGO, ST. LOUIS, BOSTON, BALTIMORE, NEW ORLEANS, KANSAS CITY, MINNEAPOLIS, INDIANAPOLIS, MEMPHIS; LONDON, ENG.; MONTREAL, QUE.; SYDNEY, N.S.W.; ST. PETERSBURG, RUSSIA; SIMLA, INDIA; TOKIO, JAPAN.

Blood Food

To feed the body and starve the blood is like pouring water through a sieve. If the blood is thin and weak, the digestive power of the body is weak. Why feed it food that it cannot take care of?

Feed the blood with

Pepto-Mangan ("Gude")

and the whole body is strengthened and re-organized, and the digestive tract will promptly perform its normal function. The already weakened stomach is not compelled to do extra work; PEPTO-MANGAN ("GUDE") is immediately taken up by the blood and does not produce any gastric disturbance.

To assure proper filling of prescriptions, order Pepto-Mangan ("Gude") in original bottles containing ℥ xi. IT'S NEVER SOLD IN BULK.

PEPTO-MANGAN ("GUDE") is ready for quick absorption and rapid infusion into the circulating fluid and is consequently of marked and certain value in all forms of

Anæmia, Chlorosis,
Bright's Disease,
Rachitis, Neurasthenia, etc.

Samples and literature upon application.

M. J. BREITENBACH COMPANY,

LABORATORY,
LEIPZIG, GERMANY.

53 Warren Street, NEW YORK.

True Animal Iron

Physicians everywhere are looking for a **Blood** reconstructant that contains every element of nutrition of the animal, mineral and vegetable kingdoms, viz.: **Animal Iron.**

BOVININE

CONTAINS 10% ANIMAL IRON,

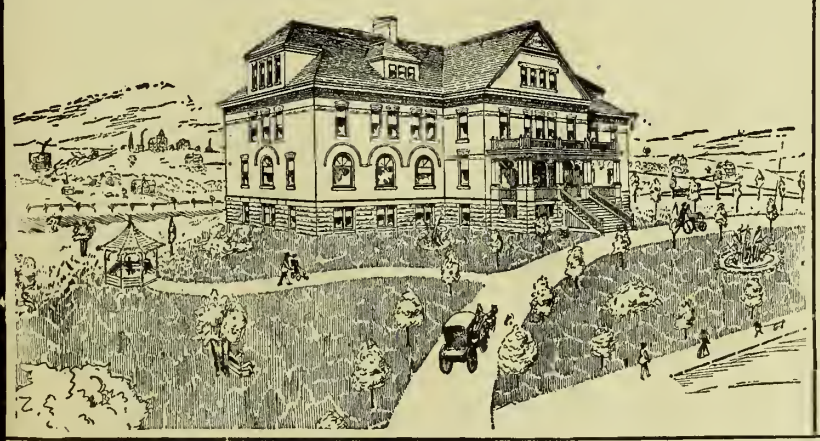
20% Coagulable Albumen, and all the constituents of healthy **Blood.**

It is thoroughly sterile, requires little or no digestion, and produces blood corpuscles that **Mature.** Herein lies its great superiority over any and all the preparations of inorganic iron. Our scientific treatise on Haematherapy for the asking. It contains reports of hundreds of cases.

THE BOVININE COMPANY

75 West Houston Street, NEW YORK

THE DR. BENJ. F. BAILEY SANATORIUM



Not a hospital, not a hotel, but a home. The building is located on a sightly hill at Normal, and is reached by the cars of the Lincoln street railway, being only 23 minutes' ride from the business center of the city. It is thoroughly equipped and beautifully furnished. Every electric current useful in the treatment of the sick is used, and ideal Turkish, Russian, and Medicated Baths are given. Only non-contagious cases are received. For further information address

The B. F. BAILEY SANATORIUM, Lincoln, Neb.

PROGRESS IN GENITO-URINARY THERAPEUTICS

Shows no advance more important than the introduction of

Uriseptin

Liberates Formaldehyd slowly in the Kidneys — Makes the Urine Antiseptic

Keeps the Urinary Tract Aseptic

The ONLY Urinary Antiseptic with Diuretic and Soothing properties

URISEPTIN is a distinct advance because it renders possible Antisepsis of the Urinary Tract by internal medication. Urine voided thirty minutes after the taking of a tablespoonful of Uriseptin is antiseptic to such an extent as to be a bactericide to pyogenic germs. In CYSTITIS relief is prompt, and results are continuous. In URETHRITIS, during the Acute Stage, pain is lessened, inflammation and further infection prevented. Chronic Urethritis—Bacteria are destroyed, the surfaces soothed, and healing is prompt. The results are the same in all inflammatory conditions of the urinary tract. Uriseptin has the endorsement of sixty per cent of the members of the "American Association of Genito-Urinary Surgeons" as being the best palliative treatment for Prostatic Hypertrophy.

FORMULA AND DOSE

Each fluid ounce contains 24 grains of Lithium Methaminate (Lithium Salt of Formaldehyd) dissolved in Aqueous Extract of Corn Silk and Couch Grass.

One or two teaspoonfuls four times a day, preferably in hot water.

Full information furnished physicians on request, or eight-ounce bottle sent express paid on receipt of twenty-five cents.

GARDNER-BARADA CHEMICAL CO.

CHICAGO

U. S. A.

42 RIVER STREET

INDICATED IN

NEPHRITIS PYELITIS URETHRITIS
CYSTITIS CALCULUS RHEUMATISM
GOUT GONORRHEA GLEET
BACTERIURIA OF SCARLET,
TYPHOID AND OTHER FEVERS
PNEUMONIA

Creighton Medical College

CORNER 14th AND DAVENPORT STREETS

OMAHA, = = = = NEBRASKA

THE ELEVENTH ANNUAL COURSE OF STUDY in this institution will begin Wednesday, September 21st, 1904. The course in this college consists of four terms of seven and one-half months each. The first two years are devoted to the study of the so-called scientific branches included in a medical course. For this purpose the new college building is furnished with lecture rooms and laboratories equipped with the latest and best paraphernalia for teaching, demonstrating, and for individual work in these branches. The third and fourth years are given up to the study of what might be termed the practical part of the medical course. Here the instruction is carried on by means of Clinics and Clinical lectures. The student is brought in contact and becomes familiar with the different phases of all diseases he reads about. For this purpose the clinical material in St. Joseph's, St. Bernard's, and Mercy hospitals, the three largest hospitals in the west, is reserved for the exclusive benefit of students attending this school.

All buildings, both college and hospitals, are new and modern, and the equipment the best that money can buy. In addition to the regular term of seven and one-half months, a spring course of two months in first and second year work is continued from close of winter term to last of June. This short course gives students, deficient in time or work, an opportunity to make up such deficiency and also allows physicians already in practice to renew their acquaintance with laboratory work, and to familiarize themselves with whatever new things there are in Histology, Pathology, Bacteriology, Chemistry, etc.

For further information address

D. C. BRYANT, M. D., Secretary,

206 McCague Building, Creighton Medical College, Omaha, Nebraska

The New York Polyclinic Medical School ....and Hospital....

214-220 East 34th St., New York City

FOUNDED IN 1881

Practical Post-Graduate Courses in all the Departments of Medicine and Surgery

THE DISPENSARY AND HOSPITAL annexed to the institution yield a variety of material for clinical demonstrations of the technic of major and minor surgical operations, the diagnosis and treatment of diseases. Modern methods in the special branches of each department are studied. Laboratory instruction in Pathology, Bacteriology, and Urinary Analysis. Classes in Operative Surgery and Electro-radio Therapy.

For further information address

Charles H. Chetwood, M. D.,
Secretary of the Faculty.

Post-Graduate Medical School and Hospital of Chicago

2400 Dearborn St.

Actual Clinical Work with Abundant Material and Small Classes

The facilities for Post-Graduate teaching are thorough and complete in all departments, including HOSPITAL, CLINICAL, and LABORATORY advantages that are not excelled anywhere. Students can matriculate with equal advantage at any time.

Laboratories are under the direct supervision of Prof. Theo. Edwin Klebs.

For Illustrated Announcement address the Secretary,

FRANKLIN H. MARTIN, M. D.,
2400 Dearborn Street, CHICAGO, ILLINOIS.

K & O. DOUCHE FOR THE APPLICATION OF GLYCO-THYMOLINE TO THE NASAL CAVITIES

GLYCO-THYMOLINE

FOR

CATARRHAL CONDITIONS

Nasal, Throat

Intestinal

Stomach, Rectal

and Utero-Vaginal

KRESS & OWEN COMPANY

210 FULTON STREET NEW YORK

ALLOUEZ

Bi-Magnesia Spring Water

The Natural Remedy for Glycosuria, Diabetes, Nephritis, Bright's Disease, Rheumatism, Gout

EVIDENCE IN DIABETES

S. BARUCH, A. M., M. D., Lexington Ave. and 79th St., New York city:
"I have used the Allouez Magnesia water in a number of cases of diabetes with good results."

L. W. HAWK, M. D., Rochester, N. Y.:
"I employed Allouez Magnesia very satisfactorily in albuminuria during pregnancy."

EDGAR A. FISHER, M D., Worcester, Mass.:
"A valuable adjuvant in diabetes mellitus and diseases of the kidneys and urinary organs."

W. F. HONAN, M. D., Sherman Sq., New York:
"The Allouez Magnesia water produced prompt disappearance of the sugar with consequent lowering of the gravity. The ages of the patients treated ranged from 40 to 81 years. Some had diabetes for four years. I am much pleased, doctor." (Letter to Dr. Egbert Guernsey, New York city.)

PROF. CLIFFORD MITCHELL, A. M., M. D., Chicago:
"Inasmuch as many of the patients, who have been cured by the water, had resisted the action of jumbul, arsenic, lithia, and codeine, I ask, IS IT A DISCOVERY IN THE THERAPEUTICS OF DIABETES?"

MORRIS HALE, M. D., Hot Springs, Ark.:
"Allouez Magnesia water has given me invaluable aid in the treatment of diabetes mellitus."

L. A. KENGLA, M. D., San Francisco:
"A splendid remedy in Bright's disease, diabetes, and uric acid excess."

Brochure of Medical Endorsements on request.

(Still: Half-Gals.) Sparkling: Pints, Quarts, Splits.

ALLOUEZ MINERAL SPRING CO., (P. O.) Green Bay, Wis.

Chicago Office, 1129 Masonic Temple.

DISTRIBUTERS

New York: H.T. Hodgskin, 68 Broad St.
Philadelphia: Kaiser & Co.
Detroit: G. & R. McMillan.
Washington: Kaiser & Co.
St. Louis: Meyer Bros. Drug Co.
Montreal: Fraser, Viger & Co.
Buffalo: Kempff Bros., 357 Genesee
Pittsburg: Boericke & Tafel.
New Orleans: Finley Dicks Co.
Cincinnati: J. R. Peebles & Sons.
Worcester, Mass.: W. S. Pratt.
Hamilton, Ont.: Balfour & Co.
Cleveland: Chandler Rudd Co.
Atlanta, Ga.: J. B. Daniel.
Omaha: Sherman & McConnell Co.
Denver: Scholtz Drug Co.
San Francisco: D. M. Fletcher, Geary St.
Boston: S. S. Pierce Co.
Los Angeles: F. W. Braun & Co.
New Westminster, B. C: H. Freeman.
Toronto: Lyman Bros. Co.

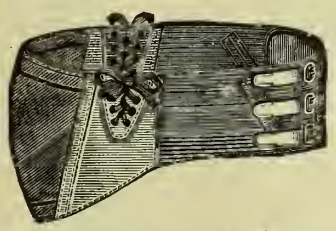
"There is no other drug, the continuous administration of which acts so reliably and satisfactorily, without deleterious effect. It (thialion) may be continued for days, producing two or three evacuations each day without the least depression. It arrests fermentation, not alone by discharging bile into the intestines, but also re-establishing a normal alkalinity of their contents, at the same time it increases the secretion of urine and renders it alkaline."

Extract from a paper published in the Charlotte Medical Journal, December, 1898, by Augustin Goelet, M. D., Professor Gynecology and Abdominal Surgery, of the New York School of Clinical Medicine.

THE VASS CHEMICAL COMPANY, INC.,
DANBURY, CONNECTICUT, U. S. A.

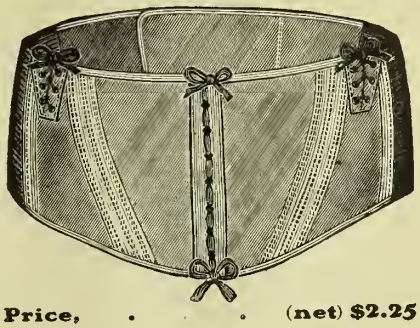
SUPPORTING BELTS For Every Condition Requiring Abdominal Support

SPECIAL ELASTIC



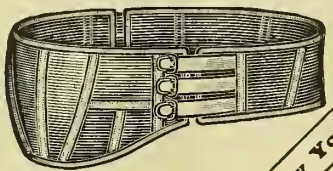
Price, thread, (net) $2.06
" silk, " 2.62

SELF ADJUSTING



Price, . . (net) $2.25

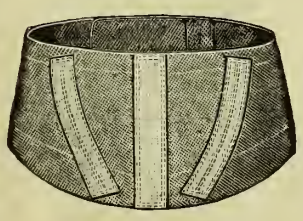
COMFORT



Price, (net) $1.50

Catalogues on Supporting Belts, Elastic Stockings, Trusses, Orthopedics. Sent on request.

ALL ELASTIC



Made to Order

	Qual. "A"	Qual. "B"
Price, thread .	$6.00	$4.50
" fine silk	7.50	6.00
" heavy silk	9.00	7.50

NET PRICES TO PHYSICIANS ONLY

Supporting Belts "Made to Fit"

Pomeroy Company

17 Union Square

New York

Cut here, mail to Pomeroy Company, 17 Union Square, New York

Name of Belt .....

Quality .....

Enclose Price $.....

DIRECTIONS FOR MEASURING.

Place circumferences on corresponding lines in the cut.

Name.....

Address.....

NEBRASKA STATE MEDICAL ASSOCIATION.

OFFICERS AND COMMITTEES, 1903-1904.

OFFICERS.

PRESIDENT—B. F. Crummer.... .....Omaha.
VICE-PRESIDENT—G. W. Shidler.....York.
VICE-PRESIDENT—P. E. Plumb.....Gothenburg.
RECORDING SECRETARY—A. D. Wilkinson.....Lincoln.
CORRESPONDING SECRETARY AND LIBRARIAN—
H. Winnett Orr .. ..Lincoln.
TREASURER—J. L. Greene .....Asylum.

COMMITTEES.

SCIENTIFIC WORK.

A. D. Wilkinson, *Chairman*.....Lincoln.
B. B. Davis.....Omaha.
W. D. Beattie.....Neligh.
J. M. Mayhew.....Lincoln.
J. M. Aikin.....Omaha.
A. B. Somers.....Omaha.
I. C. Philbrick.....Lincoln.

PUBLIC POLICY AND LEGISLATION.

A. S. von Mansfelde, *Chairman*.....Ashland.
F. D. Haldeman.....Ord.
C. L. Mullins.....Broken Bow.
B. F. Crummer.....Omaha.
A. D. Wilkinson.....Lincoln.

PUBLICATION.

A. D. Wilkinson, *Chairman*.....Lincoln.
R. C. McDonald.....Fremont.
M. L. Hildreth .....Lyons.

COUNCILORS.

1st District—B. B. Davis.....Omaha.
2d District—A. R. Mitchell.....Lincoln.
3d District—J. W. Bullard.....Pawnee City.
4th District—E. Tanner.....Battle Creek.
5th District—R. C. McDonald.....Fremont.
6th District—L. M. Shaw.....Osceola.
7th District—G. L. Pritchett.....Fairbury.
8th District—A. Lewis.....Valentine.
9th District—C. L. Mullins.....Broken Bow.
10th District—W. D. Shields.....Holdrege.
11th District—J. A. Andrews.....Eustis.
12th District—J. E. Moore.....Alliance.

SECTIONS.

SURGERY.

B. B. Davis, *Chairman*.....Omaha.
W. D. Beattie, *Secretary*.....Neligh.

MEDICINE.

J. M. Mayhew, *Chairman*.....Lincoln.
J. M. Aikin, *Secretary*.....Omaha.

GYNECOLOGY AND OBSTETRICS.

A. B. Somers, *Chairman*.....Omaha.
I. C. Philbrick, *Secretary* .....Lincoln

DELEGATES TO A. M. A.

H. M. McClanahan, Omaha. A. B. Anderson, Pawnee City.

SECRETARIES OF COUNTY SOCIETIES.

COUNTY.	SECRETARY.	ADDRESS.
Adams	R. R. Marble	Hastings.
Antelope	D. W. Beattie	Neligh.
Boone	R. J. Murdock	Petersburg.
Box Butte	J. E. Moore	Alliance.
Boyd	W. F. Craft	Gross.
Brown	G. O. Remy	Ainsworth.
Buffalo	G. M. Hull	Kearney.
Burt	I. Lukens	Tekamah.
Butler	H. R. Burdick	David City.
Cass	W. A. Alton	Elmwood.
Cedar	Morris Nielsen	Belden.
Cherry	M. P. McDowell	Merriman.
Clay	A. R. Ray	Fairfield.
Colfax	G. L. Dewey	Leigh.
Custer	C. L. Mullins.	Broken Bow.
Dawes	A. E. Wier	Chadron.
Dawson	P. E. Plumb	Gothenburg.
Dixon and Dakota	R. Q. Rowse	Wakefield.
Dodge	A. P. Overgaard	Fremont.
Douglas	J. M. Aikin	Omaha.
Fillmore	C. F. Morsman	Strang.
Franklin	U. H. Malick.	Bloomington.
Frontier	Willis Wilson	Curtis.
Gage	I. N. Pickett	Odell.
Greeley	J. L. Brannen	Greeley.
Hall	J. C. Horton	Grand Island.
Hamilton	I. W. Houghey	Aurora.
Harlan	J. N. Campbell	Stamford.
Holt	P. J. Flynn.	O'Neill.
Howard	F. S. Nicholson	St. Paul.
Jefferson	Warren Perry	Fairbury.
Johnson	C. K. Chubbuck	Tecumseh.
Kearney	S. J. Jones	Minden.
Knox	R. C. Burrell	Creighton.
Lancaster	H. W. Orr.	Lincoln.
Lincoln	V. Lucas	North Platte.
Madison	F. A. Long	Madison.
Merrick	J. E. Benton	Central City.
Nance	D. M. Judkins	Fullerton.
Nemaha	W. E. Shook	South Auburn.
Otoe	C. S. Crudup	Nebraska City.
Pawnee	H. L. Akin	Du Bois.
Phelps	P. A. Sundburg	Holdrege.
Platte	J. C. McKinley	Humphrey.
Polk	L. M. Shaw	Osceola.
Red Willow	W. D. Mackechnie	Indianola.
Richardson	F. C. Wiser	Falls City.
Saline	E. Bates	Crete.
Sarpy	E. C. Ruge	Springfield.
Saunders	M. A. Quincy	Ashland.
Seward	C. O. Petty.	Beaver Crossing.
Stanton	J. C. Watton	Pilger.
Thayer	J. H. Boyes	Hebron.
Thurston	N. R. Smith	Pender.
Valley-Loup-Garfield	D. S. Hogan.	North Loup.
Washington	G. A. Langstaff	Blair.
Wayne	W. H. Phillips	Carroll.
Webster	C. A. Creighton	Red Cloud.
York	J. W. Straight.	Benedict.

Collargolum & Unguentum Crede

(Soluble Metallic Silver —Von Heyden.) (15 per ct. Collargolum —Von Heyden.) Ointment

Efficient but harmless blood and tissue disinfectants which have given brilliant results in almost hopeless puerperal sepses, epidemic cerebrospinal meningitis, anthrax, septic endocarditis, etc. When rapid effects are necessary COLLARGOLUM should be intravenously injected; but ordinarily UNGUENTUM CREDÉ is most conveniently employed.

Recommended by **Profs. Roswell Park, A. Jacobi. F. Forchheimer, W. B. Dorsett, H. J. Boldt, C. G. Cumston, Tillmanns, Dieckerhoff, Wenckebach,** and many others.

Creosotal and Duotal

(Creosote Carbonate— Von Heyden.) (Guaiac 1 Carbonate— Von Heyden.)

NON-TOXIC AND NON IRRITANT SPECIFICS FOR TUBERCULOSIS, PNEUMONIA, ETC.

Duotal is odorless and tasteless, while **Creosotal** is almost so. They never cause gastric disturbances, even in massive doses. In tuberculosis they stimulate the appetite, diminish or entirely obviate the characteristic symptoms, and produce a gain in weight.

Favorably reported upon by **Profs. A. H. Smith, W. H. Thomson, R. W. Wilcox, L. Weber, Jas. Tyson. G. Cornet, Rudolph Kobert, v. Leyden, Dujardin-Beaumetz,** and others.

LITERATURE ON APPLICATION TO

SCHERING & GLATZ,

Sole Agents, New York.

THE GOODNESS ISN'T THE GREASE

There are just two things about ***Cod Liver Oil***—goodness and grease. It used to be thought you couldn't get the goodness without the grease. That's wrong. The goodness isn't the grease. It is no more necessary to swallow the nauseous grease of ***Cod Liver Oil*** to get the valuable principles, than it is to eat the shell of an egg to get the meat.

Right there you have the whole secret of the incalculable value of

Hagee's Cordial of Cod Liver Oil Comp.

In separating the grease from the valuable properties, nothing is lost in the process. You get all that ***Cod Liver Oil*** is famed for, joined with the hypophosphites of lime and soda in a pleasant cordial, without a trace of the dreaded taste. Instead of being greasy, it is delightful to take. Instead of a fishy smell, it has an appetizing odor.

HAGEE'S CORDIAL is not a patent medicine. There's nothing mysterious about it. We have simply taken a disagreeable but good remedy, and made it better by making it palatable. Formula on every bottle.

PRESCRIBE

CORD. OL. MORRHUAE COMP. (Hagee)

AND JUDGE OF THE MERITS BY RESULTS.

Put up in 16-oz. bottles only. Never sold in bulk.

Katharmon Chemical Co.,

ST. LOUIS, MO.

Illinois School of Electro-Therapeutics

AT THE REQUEST OF MANY PHYSICIANS THIS SCHOOL WILL OFFER

..A Special Course..

embracing a series of special lectures and clinics, at which prominent electro-therapeutists will be invited to participate. All the latest electro-medical apparatus will be on exhibition. This course begins on MAY 9, 1904, and continues for the regular term of

THREE WEEKS

Every effort will be put forth to make this session of special value to the student, and a red letter one in the history of the school. No advance in tuition. It comes at a dull season—take advantage of it. Write for catalogue, and do not forget the date,

MAY 9, 1904

ILLINOIS SCHOOL OF ELECTRO-THERAPEUTICS, 412-13-14 Atlas Blk., Chicago, Ill.

Dealers will extend special rates to students of this course who may desire to purchase apparatus.

RIO TRADE MARK

CELERINA

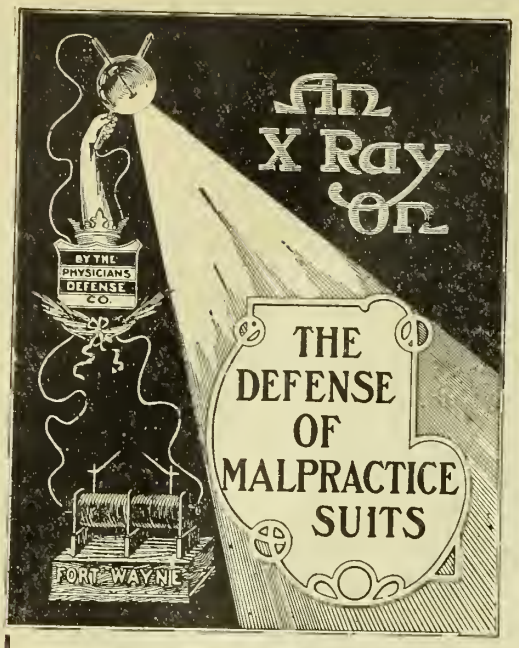
IN

Teaspoonful Doses three or four times a day,

PRODUCES RESULTS

in the treatment of Brain Fag, Alcoholic Nerves, Senile Weakness etc., that will induce the Physician to confirm the verdict of the Profession everywhere as to the virtues of this Celebrated Nerve Stimulant and Tonic.

Rio Chemical Co., New York.



This Brochure containing an analysis of all plans for the defense of Malpractice Suits will be sent free upon request. Address the

PHYSICIANS DEFENSE COMPANY,
Elektron Building, Room 310,
Fort Wayne. Indiana.

Pharmaco=therapy

By DR. P. E. KOERBER

Small size book, handy for pocket, written especially for the practicing regular physician. Metric system.
Price, $1.00. Address

DR. P. E. KOERBER,
Yutan, Nebraska.

New Orleans Polyclinic

Seventeenth Annual Session Opens November 2d, 1903, and Closes May 28th, 1904.

Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory work. For further information address

New Orleans Polyclinic,

POST-OFFICE BOX 797, NEW ORLEANS, LA.

H. GIFFORD, M. D. GEO. H. BICKNELL, M. D.
Practice Limited to Diseases of the Eye, Ear, Nose, and Throat
Karbach Block, Fifteenth and Douglas Streets, Omaha, Neb. Tel. 789.

DR. R. D. MASON
Rectal and Pelvic Surgery
Author of "The Office Treatment of Rectal Diseases." Price $1.50.
OMAHA, NEBRASKA.

Telephones: Office, 1532; Residence, 2707 Long Distance. Office Hours, 10 to 12 a. m., 2 to 5 p. m. Sabbath by appointment only.

....DR. J. M. AIKIN, NERVOUS AND MENTAL DISORDERS....
Office, Brown Block, Sixteenth and Douglas Streets, Omaha, Neb.

Dr. Charles C. Allison
SURGERY AND GYNECOLOGY
Telephones 156 and 220. *Omaha Nebraska*

Tel. { Residence, 426 / Office, - - 888 . . . Nervous and Mental Diseases

S. K. SPALDING, M. D.
Office McCague Building, Fifteenth and Dodge Streets. Omaha, Neb.

DR. JOHN PRENTISS LORD — Tel. Office 33, Res. Long Distance 966
DR. FREDERICK RUSTIN — Tel. Office 33, Res. Long Distance 2404
DRS. LORD AND RUSTIN
Practice limited to **General Surgery.** Paxton Block, Sixteenth and Farnam Streets, Omaha, Neb. Office hours, afternoons and by appointment.

PATHOLOGY AND BACTERIOLOGY
W. R. LAVENDER, M. D.
Office 5-6 Continental Blk. Residence 2208 Burt St. Tel. 1292. Omaha, Neb.

SOLON R. TOWNE, A. M., M. D.
Contagious Dis. Hygiene Sanitation
Telephones No. 1065 and No. F 330. *Omaha, Nebraska*

DR. JAMES L. GREENE
Superintendent of the Nebraska Hospital for the Insane, Lincoln, will visit, in consultation, when called by physicians, cases of
BRAIN OR NERVE DISEASES

F. E. COULTER, M. D., Omaha, Neb.
LATE Assistant Sir W. R. Gowers, M. D, F. R. S., London. Professor Clinical Neurology Creighton Medical College. Neurologist St. Joseph Hospital, etc., etc. Practice limited to Nervous Diseases. Office McCague Bldg.

Drs. W. O. & E. C. Henry Rooms 402 3-4 McCague Building.
SURGEONS AND GYNECOLOGISTS
Phones: Office, 888; Residence and Long Distance, 88. *Omaha, Neb.*

Dr. H. B. Lemere, 309 Paxton Block, Omaha, Neb.
Long Distance Telephone 685. Residence Black 2911. Hours 9 to 12, 2 to 5.
Practice limited to Eye, Ear, Nose, and Throat

DR. W. H. CHRISTIE Office, rooms 48 and 49 Barker Block, Omaha. Telephone Residence 479, Office 872, connects with long distance telephone. Special attention to Diagnosis, Consultation and ... INTERNAL MEDICINE
DR. B. W. CHRISTIE in Charge of Laboratory.

LINCOLN CLINICAL LABORATORY . . . .
Examinations of Urine, Sputum, Blood and Tissues, Microscopical and Chemical, of all kinds to assist in diagnosis.
H. WINNETT ORR, M. D. L. D. Telephone B 953. LINCOLN, NEB.

DR. C. W. POLLARD
Chemical and Microscopical Examinations of Urine, Sputa, Blood, Tumors, Stomach Contents.
Phones: Office 682, Residence 2886. 409 Paxton Block, Omaha, Neb.

My Specialty Is "Stomach Diseases." Prof. of same Creighton College.
R. E. SCHINDEL, M. D., South Omaha, Neb.
Office 415 North Twenty-fourth Street. Residence Twenty-second and J. Phones (Bells) Office 1392, Res. 4392. Hours 10 to 12 a.m., 1 to 3 and 7 to 8 p.m.

F. S OWEN, M. D. 209 Karbach Block, Cor. 15th & Douglas Omaha
Practice Limited to the Eye, Ear, Nose and Throat
Office Hours: 9 a. m. to 12 m.; 1:30 to 4:30 p. m.; Sundays, 10 a. m. to 12 m.
Telephones: Office 324; Residence A 2669.

Omaha-Florence Sanatorium, Florence, Neb.
One block west of electric car line. W. L. ROSS, Medical Superintendent, 2121 Lake street, Omaha. Long Distance Phone 1192. Wire or phone for nurses to give Massage, Hydriatic Treatment, and General Nursing.

Dr. A. P. Condon, Long Distance Phone 2918
GENERAL SURGERY,
Office, 311 N. Y. Life Building. *Omaha, Nebraska.*

ANTISEPTIC
HYGROSCOPIC

EXOSMOTIC
ENDOSMOTIC

ANTIPHLOGISTINE

—FOR—

INFLAMMATION AND CONGESTION

DIRECTIONS.—Always heat Antiphlogistine in the can (never on a cloth) by placing the can in hot water. Do not permit water to get into the medicine. When as hot as can be borne, apply with a suitable knife as quickly as possible, spreading the Antiphlogistine on the skin over the affected part at least an eighth of an inch thick and cover promptly with a liberal supply of absorbent cotton and a bandage or suitable compress.

ANTIPHLOGISTINE stimulates the cutaneous reflexes and promotes circulation in the diseased part. The results are always satisfactory.

To insure obtaining Antiphlogistine at its best, always prescribe original packages—Small, Medium, Large or Hospital Size.

Pneumonia ⌀ **Boils** ⌀ **Sprains** ⌀ **Synovitis**

The Denver Chemical Mfg. Co.

(INCORPORATED IN 1893)

Home Office, Denver.
London Office, 110, Cheapside, E. C.

New York, U. S. A.

ECTHOL, NEITHER ALTERATIVE NOR ANTISEPTIC IN THE SENSE IN WHICH THOSE WORDS ARE USUALLY UNDERSTOOD. IT IS ANTI-PURULENT, ANTI-MORBIFIC--A CORRECTOR OF THE DEPRAVED CONDITION OF THE FLUIDS AND TISSUES.

SAMPLE (12-oz.) BOTTLE SENT FREE ON RECEIPT OF 25 CTS.

FORMULA:--Active principles of Echinacia and Thuja.

BROMIDIA
IODIA
PAPINE

BATTLE & CO., CHEMISTS CORPORATION, ST. LOUIS, MO., U. S. A.

ALL THE SALICYLIC ACID IN TONGALINE IS MADE FROM THE PUREST NATURAL OIL OF WINTERGREEN

Tongaline

POSSESSES

THE ANTISPASMODIC AND SEDATIVE ACTION OF CIMICIFUGA

THE CATHARTIC AND DIURETIC ACTION OF COLCHICINE

THE DIAPHORETIC ACTION OF PILOCARPINE

THE ANTI-RHEUMATIC AND ANTISEPTIC ACTION OF SALICYLIC ACID

(WRITE FOR SAMPLES.)

RHEUMATISM
NEURALGIA
GRIPPE
GOUT
SCIATICA
LUMBAGO

TONGALINE LIQUID
TONGALINE TABLETS
TONGALINE & LITHIA TABLETS
TONGALINE & QUININE TABLETS

MELLIER DRUG COMPANY, ST. LOUIS.

PHILLIPS' **EMULSION** 50% best **NORWAY COD LIVER OIL** minutely sub-divided, **WITH WHEAT PHOSPHATES** (Phillips').
Pancreatized, Palatable, Permanent, Miscible in Water, Milk, Wine, Etc.

PHILLIPS' **MILK OF MAGNESIA** $Mg H_2 O_2$ (FLUID.) "THE PERFECT ANTACID"
for correcting Hyperacid conditions—local or systemic.
Vehicle for Salicylates, Iodides, Balsams, etc.

PHILLIPS' **PHOSPHO-MURIATE OF QUININE,** COMP.
TONIC AND RECONSTRUCTIVE.
WHEAT PHOSPHATES, WITH MURIATE OF QUININE AND STRYCHNINE.

PHILLIPS' WHEAT PHOSPHATES (ACID).
PHILLIPS' SYRUP OF WHEAT PHOSPHATES.
PHILLIPS' DIGESTIBLE COCOA.

THE CHAS. H. PHILLIPS CHEMICAL CO., NEW YORK.

but a moment's reflection will show the error of such a decision. There are to be taken into account especially the nature of the case, the character of the treatment to be pursued, the time consumed, the skill of the physician, and also the station—public and private—of the patient. The physician is, by force of circumstances, compelled to have a varying fee even for similar service. He can not elect to treat only the rich; neither can he afford to treat only the poor. He gives much of his service gratuitously, so that none is deprived of the opportunities for relief afforded by his skill and ability. For these reasons the physician's fee can not be a fixed and inflexible one. This would seem to be the view held by Judge Ashman of Philadelphia, as expressed recently in a decision rendered in the orphans' court: "The life of a rich man," he said, "is worth more than the life of a poor man, and the physician has a right to charge the millionaire more for his services than he does the laborer. * * * The physician is unlike the merchant, who has goods of different quality to sell at various prices. He must give his best service in every case. But it does not follow that the service is worth the same in every case. * * * Human life has a pecuniary value of variable quantity, greater in the millionaire than in the laborer. Thus, the practitioner of common sense has a maximum and a minimum charge and makes out his bills to suit the pecuniary circumstances of the patient."—Journal A. M. A.

Notes and News.

Dr. Thomas, of Eagle, locates in Union, Neb.

Dr. Poole, of Sharon, N. D., has located in Knox, N. D.

Dr. Robinson, of Clarks, Neb., has moved to Oklahoma.

Dr. C. E. Wolfe, late of Chicago, has located in Adair, Ia.

Dr. W. L. Pollock, of Boone, Ia., has moved to Shanee, Okla.

Dr. L. E. Maker, of Sibley, Ia., has located at Dolliver, Ia.

Dr. T. E. K. Dihel, of Dexter, Ia., has moved to Eagle, Neb.

Dr. McLeod, of Brooklyn, N. Y., has located in Hudson, Wis.

Dr. J. McDonald, of Armstrong, Ia., has moved to Creston, Ia.

Dr. E. A. Beard, of Grinnell, Ia., has located in Stanton, Neb.

Dr. A. W. Hoyt, of Indianola, Neb., has moved to Friend, Neb.

Dr. A. B. Lindquist, of Omaha, has located in Wakefield, Neb.

Dr. A. H. Gilmore, of Loomis, Neb., has moved to Fairhaven, Ohio.

Dr. La Rose, of Bismarck, N. D., has located in Mandan, N. D.

Dr. Marton has moved from Hankinson, N. D., to Effington, N. D.

Dr. S. Dulude, of Argyle, Minn., has located in Winstead, Minn.

Dr. Lalonde, of Eden Valley, Minn., is located in Torah, Minn.

The Gage County Medical Society met in Wymore, Neb., April 5.

Dr. E. S. Hooper, of Darlington, Wis., has located in Radcliffe, Ia.

Dr. A. O. Heiberg, of Northfield, Minn., died at his home March 18.

Dr. E. J. Porter, of Grand Island, Neb., has located in Mason City, Neb.

Dr. R. M. Burlingame, of Minneapolis, has located in Watertown, S. D.

Dr. Thor Moeller, of Rolla, N. D., has located at Devils Lake, N. D.

Dr. N. M. Wade, of Central City, S. D., has moved to St. Paul, Minn.

Dr. Edward Rochette, of St. Paul, Minn., has located in Detroit, Mich.

Dr. A. V. Stephenson, of Council Bluffs, Ia., has located in Oakland, Ia.

Dr. A. A. Whittemore, of Leeds, N. D., has located in White Earth, N. D.

Dr. G. H. Neal, a practicing physician of Falls City, Neb., died recently.

Dr. J. F. Smith, of Pelican Rapids, Minn., has moved to Nassau, Minn.

Dr. F. W. Lester, of David City, Neb., has moved to Baldwin, Wis.

Dr. J. W. Wells, of Mankato, Minn., has located in Minneapolis, Minn.

Dr. T. C. Tasche, of Howard's Grove, Wis., has located in Manitowoc, Wis.

Dr. H. A. Foster and Miss Grace Watrous, of Omaha, were married recently.

Dr. C. L. Sherman, late of Sioux City, Ia., has opened offices in Luverne, Minn.

Dr. F. E. Brown, of Sheldon, Ia., has gone to New Orleans for about a month.

Dr. and Mrs. G. C. Parsons, of Belmond, Ia., have located in Minneapolis, Minn.

Dr. Robert Gilmore, of Omaha, has been in Hot Springs, Ark., for a few weeks.

Dr. J. V. Hinchman, of Hebron, Neb., has sold his practice to Dr. Henry, of Iowa.

The Custer County Medical Society held their regular meeting at Broken Bow, Neb.

Dr. Milo Bloomer, of Dodge, Neb., died recently. His death was due to tuberculosis.

Dr. Patterson, of Evarts, S. D., has sold his practice and residence to Dr. Sturgeon.

Dr. E. C. McMellan and Miss Margaret Miller, of Hudson, Ia., were married March 30.

Dr. G. B. Hays, of Auburn, Neb., has sold his practice to Dr. Linn, of Johnson, Neb.

Dr. E. Rochette and family, of Philipsburg, Mont., have moved to Minneapolis, Minn.

Dr. Kinney, of Essex, Ia., has returned to his home from a trip to Eldorado Springs, Mo.

Dr. L. E. Maker, for several years a practitioner in Sibley, Ia., has located in Dolliver, Ia.

Dr. Otto Hansen, who has been practicing in Island City, Ore., has located in Wausa, Neb.

Dr. E. W. Humphrey, of Minneapolis, Minn., has decided to locate in Moorhead, Minn.

Dr. Guy Ramsey, of Marathon, Ia., has removed to his former home at North Liberty, Ia.

Dr. D. H. Westfall, of Lindsay, Neb., was married to Miss Martha Primmer, of Newman Grove.

The Dodge County Medical Society held its regular monthly meeting at Fremont, Neb., March 10.

Dr. M. F. Patterson, who has been practicing in Des Moines, Ia., has located in Fonda, Ia.

Dr. O. Gray has given up his practice in New Ulm, Minn., and has located in Springfield, Minn.

Dr. Reichenbach, of Pender, Neb., attended the Phi Rho Sigma banquet held at Omaha in March.

The Pottawattamie County Medical Society held its regular quarterly meeting in Avoca, Ia., in March.

Dr. J. W. Wells, who located in St. Peter, Minn., some months ago, has moved to Rochester, Minn.

Dr. J. W. Bourne, of Verdon, Neb., has made arrangements to move to Auburn, Neb., about the first of May.

Dr. Tufte, of Fergus Falls, Minn., has gone to New York for several months, when he will leave for Europe.

Dr. J. E. Summers, of Omaha, has been appointed chief of the medical staff at the Douglas County Hospital.

Dr. D. B. McLain and wife, of Jamestown, N. D., have moved to Chicago, where their home will be in the future.

In honor of his fifty years of continuous service in the medi-

cal profession, Dr. Charles F. Warner, of Mankato, Minn., was tendered a banquet by about forty of his friends.

DR. D. R. COLBY, of Beatrice, Neb., died at his home March 19, from the result of injuries sustained in a runaway.

DR. BURLEIGH, of Syracuse, Neb., has left for Canada, where he has been given a commission in the Canadian army.

DR. H. S. FARNSWORTH, who has practiced medicine in Clinton, Ia., since 1865, died recently at the age of 71 years.

DR. KAESS, who has been at Ashury hospital in Minneapolis for the past three years, has located in Moorhead, Minn.

DR. M. A. MANSON has retired from the practice of medicine in Hibhing, Minn., and has moved to Minneapolis, Minn.

DR. R. H. PYLES, of St. Joseph, Mo., has moved to Hudson, Ia., where he will go in partnership with Dr. R. J. Nestor.

DR. STEPHEN P. TRUEX, a widely known gynecologist, died April 1 while performing an operation in a Brooklyn hospital.

DR. D. J. COOPER, who has heen practicing for the past year in Owatonna, Minn., is practicing in Dent, Otter Trail county, Minn.

DR. R. U. CAIRNS has returned to River Falls, Wis., from Downing, Wis., and will locate there in the practice of his profession.

DR. TRIPLETT, of Crete, Neb., has moved to Lincoln and will retire from active practice. Dr. Sample, of Crete, succeeds Dr. Triplett.

DR. CHAS. B. PILLSBURY, of Duluth, Minn., died recently from an abscess in the throat which developed into blood poisoning.

DR. G. A. BYERS, who has been associated with his father, Dr. J. M. Byers, at Fontanelle, Neh., has opened offices at Arlington, Neb.

DR. A. B. LINDQUEST, of Omaha, is taking charge of the practice of Dr. Rowse, of Wakefield, Neb., during the latter's absence in the hospitals.

DR. WATERBURY, of Waterloo, Ia., was in charge of the practice of Dr. McMillan, of Hudson, Ia., during the latter's ahsence from the city.

DR. C. V. BASTEN of Kearney, Neb., has been appointed chief physician of the Kearney Reform School. He will succeed Dr. H. S. Bell, who has resigned.

THE Saline County Medical Society recently held a meeting in Crete, Neb. Papers were presented by Drs. P. F. Dodson, of Wilher; S. Conrad, of Crete, and J. M. Brown, of Friend.

THE regular meeting of the Harrison County Medical Society met at Logan, Ia., March 17. Papers were read by Drs. Tamisea, Hanson, Gasson, McGavern, Mehan and Kennedy.

DR. SASSE, of Excelsior, Minn., has recently been appointed local surgeon for the M. & St. L. R. R. Co., to succeed Dr. Shrodes, resigned. Dr. Shrodes has opened an office in Minneapolis, Minn.

DR. GEORGE RICE, who has been employed in a hospital at Duluth, Minn., for ahout a year, has returned to his home in Adrian, Minn. He will not return to Duluth but will look elsewhere for a location.

THE Physicians' Commercial Club, which was organized last fall and which is composed of the physicians of Des Moines, Ia., will be addressed by lawyers of the city on various legal questions peculiarly pertinent to the medical profession.

DR. F. A. DUNSMOOR, medical director of Asbury Hospital, at Minneapolis, has resigned his position and Dr. J. Warren Little has been appointed to succeed him. Dr. Dunsmoor will continue to be a member of the medical staff of the hospital.

THE annual meeting of the Cherry County Medical Society was held in Valentine, Neb. All the officers were re-elected and Dr. A. N. Compton was chosen to represent the organization at the state meeting. Dr. A. Lewis was elected counselor for the district.

J. C. DECKER, who is in the graduating class of the Omaha Medical College, has received the appointment of interne at the Methodist Hospital, taking up his duties during the latter part of May. Robert C. Panter, of the Omaha Medical College, was given the place of interne at Immanuel Hospital.

THE Wright County Medical Society held its semi-annual meeting in Clarion, Ia., in March. Among the papers read were "Lobar Pneumonia," by Dr. J. W. Garth; "Empyema," by Dr. W. W. Bowen, and "Pleurisy," by Dr. Blanche Neil. A banquet was tendered the visiting physicians. The summer meeting will be held in Clarion during the month of June.

TRE annual election of the Seward County Medical Society was held in Seward, Neb., March 29. The following officers were elected: Drs. Doty, of Beaver Crossing, president; J. T. Potter, of Seward, vice-president; C. O. Petty, of Beaver Crossing, secretary; Ragan, of Seward, member of board of censors, and G. W. Brandon, of Milford, delegate to the state meeting.

A MEDICAL library association has been formed in Council Bluffs, Ia., and comprises the members of the medical and dental professions of the city. Dr. F. W. Dean, of Council Bluffs, was chosen president and Dr. C. E. Woodbury, secretary. A committee on constitution and by-laws was appointed, comprising Drs. Barstow, Hanchett and Hamilton. The object of the association is to install a professional library in the new Carnegie library building.

Book Reviews.

OBSTETRICS FOR NURSES. By Joseph B. De Lee, M. D. Fully illustrated. Philadelphia, New York and London: W. B. Saunders & Co. 1904.

This volume is especially attractive, being filled with clear, new illustrations which illustrate. The text is plain and combines the duties of the nurse and those of the obstetrician. While the work was written originally for nurses it will be valuable to medical students if for no other reason than to give them a clear idea of the lying-in room aside from the simple work of the accoucheur. The work is one of the most excellent it has been our pleasure to review.—C. W. M. P.

A TEXT-BOOK OF LEGAL MEDICINE AND TOXICOLOGY. Edited by Frederick Peterson, M. D., and Walter S. Haines, M. D. In two volumes, containing about 1,500 pages, fully illustrated. Volume II. Philadelphia, New York and London: W. B. Saunders & Co. 1904.

We have already given notice of the first volume of this work. The second volume shows the same scholarly preparation and is well up to the high standard of the first. The first section of this volume is devoted to subjects of Malingering, Questions of Birth and Legitimacy, Marriage, Divorce and Malpractice. The second part is devoted to Toxicology and contains all of the latent opinions on this important subject. The volume is fully illustrated and the editors have been able, with a very competent corps of collaborators, to present a work which can he accepted as a standard hook of reference on the subject.—C. W. M. P.

THE WORTH OF WORDS. By Dr. Ralcy Husted Bell. With an introduction by Dr. William Colby Cooper. Third edition, revised and enlarged. New York: Hinds & Noble, publishers, 31-33-35 West Fifteenth Street.

This little volume takes up the every-day errors of speech and the words most often misused and shows what their correction and proper use is. The arrangement is alphahetical and much can be learned by referring to it. All that is contained in it, and more, can be found in an ordinary standard dictionary, hut one would be inclined to think, after hearing some of the papers read at a medical society meeting, that a dictionary of the language does not form a part of the doctor's library. Perhaps our scientific discoveries cannot be improved, but surely the language in which they are made known to others can be, and as a missionary for better English, we bid this little volume Godspeed.—C. W. M. P.

BIOGRAPHIC CLINICS. Volume II—The Origin of the Ill-Health of George Elliot, George Lewes, Wagner, Parkman, Carlyle, Spencer, Whittier, Ossoli and Nietzsche. By George M. Gould, M. D. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904.

Dr. Gould prefaces volume II with an ample apology for the reception of volume I, the apology for the reception of volume II being reserved for future publication. He begins hy insisting that the reviewers were harsh, unsympathetic and cynical, and fears greatly lest the profession should "fail to value the facts because of the malfunction of their journalists and reviewers." The truth lies buried and reviewers and journalists may dance in glee over the remains. The scientific mind is so easily led away by the remarks of the literary scrihe and strong men of a stronger calling so easily bound by the fetters of a public opinion that Dr. Gould insists (apology again) that it is his *single* duty to render his professional hrethren

cognizant of the "enormity of the mistake they have made in ignoring the truth for the past thirty years." Revolution: By Jove! By Zeus or any other man!!

For many years we have looked upon the profession of medicine in the light of something sacred. Here shone the spirit of altruism, here were real searchers for the truth, here were men met on an honest equality, fighting with scientific endeavor to outstrip the others in dissemination of discoveries of hidden secrets, and no man, however small, could hide the truth. This is what we have been taught and what we have been thinking, and now, when we were about to sell out our practice and retire to the farm to spend the rest of our days trying to eat up some bad bills and pass on to glory, primed and puffed out in the thought that we had been a unit in this glorious congregation, everything is suddenly knocked "galley west" by Dr. G.'s assertion, that "fashions and prejudices in medicine are the rule" (apology, again). This forces us to reconstruct our ideas all over again and it is with a sad realization that we recognize, at this late day, that Harvey, Jenner, Rush, Pasteur, Virchow, Koch and a few other "Romans" were only clay, and pretty darn poor clay at that.

The doctor would seem to be sore at something, from the tone of his preface. There was a trite saying going the rounds, Doctor, when we were boys to the effect that "Rome was not builded in a day." (We have since looked into the matter and verified it.) Do not take such a severe attitude towards the world in general and your profession in particular. Just because a profession that allows its thinking to be done by hirelings like ourselves, repudiates your volume I, don't give up and get mad. Remember that others have met the same fate. Richard Wagner was in the same boat for years; Keeley had some difficulty in convincing the world that his motor was all he claimed for it, and Mary Baker Eddy is not yet universally accepted. Cheer up and give the unthinking world of scientists a chance to "catch on," as it were. You're coming at us too suddenly and expecting too much. Wait until you see what you get on volume II. You have Max Nordau skinned to a finish now.

But to return to eye-strain! You say, Doctor, that Wagner had ametropia and "that was the cause of it all." Well, well! We had always looked at it differently and called it by a different name—but we now see a new light.

We have been literary in our tastes too and had formed diagnoses and conclusions from our readings. We have not the space to give our extracts, but our conclusions were these: George Eliot, distemper, fainting turns and a touch of the pip; George Henry Lewes, fleas, a cork leg, and catarrh. Parkman, cold feet, loss of appetite and that tired feeling. Jane Welch Carlyle, jaundice, a floating kidney and seven years' itch. Spencer, boils, wens and a writer's cramp. Whittier, kidneys in his feet, water brash and infantile diarrhea. Nietzchke, hay fever (from pronouncing his own name), gas on his lungs and nervous chills. But what's the use!

We think Dr. Gould is wrong. Maybe he thinks we are—but we feel that we are as well entitled to our conclusions as he to his.—J. M. M.

Saunders' Medical Hand Atlases.—Atlas and Epitome of Operative Gynecology. By Dr. Oskar Schaeffer. Authorized Translation from the German, with Editorial Notes and Additions. Edited by J. Clarence Webster, M. D. With 42 colored lithographic plates and many text-illustrations, some in colors. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

Medical students are ignorant of gynecologic operations because in operative clinics they can see so little. This atlas is made up largely of colored plates which very admirably illustrate the several steps of the different operations. The text follows quite closely the illustrations, thus making a valuable aid to those who wish to do these operations.—C. W. M. P.

The Practical Medicine Series of Year-Books. Comprising ten volumes on the year's progress in medicine and surgery. Issued monthly. Under the general editorial charge of Gustavus P. Head, M. D. Volume II—General Surgery. Edited by John B. Murphy, M. D. November, 1903. Chicago: The Year-Book Publishers.

The subject-matter of this volume is too varied to attempt to review it and almost everyone is familiar with this series, making it unnecessary. Dr. Murphy has very carefully reviewed all of the advances and discoveries of the past year in surgery and has in many cases given almost the complete article as it originally appeared. The volume is well up to the standard of the other volumes of the series and a valuable review of surgical progress.—C. W. M. P.

BOOKS RECEIVED.

The International Medical Annual. A Year-Book of Treatment and Practitioner's Index. Twenty-second year. 1904. Price, $3. New York: E. B. Treat & Co., 241-243 West Twenty-third Street.

Progressive Medicine. Volume I—March, 1904. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 337 pages, 7 illustrations. Per annum, in four cloth-bound volumes, $9; in paper binding, $6; carriage paid to any address. Philadelphia and New York: Lea Bros. & Co., Publishers.

PAMPHLETS RECEIVED.

Treatment of Hernia by Injection. By Elmer Grant Dennis, M. D., Charles City, Ia.

Inguinal Hernia. By J. F. Davis, M. D., Oil City, Pa. (Reprint from the Pennsylvania Medical Journal, July, 1903.)

A New Intubator. By Warwick M. Cowgill, Ph. B., M. D. (Reprint from the Journal of the American Medical Association, April 8, 1899.)

Syphilis of the Nervous System. By F. E. Coulter, M. D., Omaha, Neb. (Reprint from Western Medical Review, Lincoln, Neb., April, 1903.)

The Principles of Diagnosis of Medical Malingering. By John Punton, M. D., Kansas City, Mo. (Reprint from the Medical Record, January 9, 1904.)

Treatment by Direct Dilatation of Cicatricial Œsophageal Stricture. By Joseph Rilus Eastman, M. D., of Indianapolis. (Reprint from Annals of Surgery, February, 1904.)

Why the Negro Does Not Suffer from Trachoma. By Warwick M. Cowgill, Ph. B., M. D. (Reprint from the Journal of the American Medical Association, February 17, 1900.)

Leukemia. Report of a Case Symptomatically Cured by the X-Ray. Everett J. Brown, M. D., Decatur, Ill. (Reprint from the Journal of the American Medical Association, March 26, 1904.)

Systematic Examinations, Especially Relative to Nervous Troubles—A Plea. By F. E. Coulter, M. D., Omaha, Neb. (Reprint from Western Medical Review, Lincoln, Neb., August, 1903.)

The Trend of Modern Psychiatry and Its Relation to General Medicine. By John Punton, M. D., Kansas City, Mo. (Reprint from the Journal of the American Medical Association, January 16, 1904.)

Iron in Interior of the Eye. Removal with a Magnet. Report of Two Cases. By Warwick M. Cowgill, Ph. B., M. D. (Reprint from the Journal of the American Medical Association, February 18, 1899.)

Mechanical Vibration as a Physical Agent in the Treatment of Disease. By Frederick H. Morse, M. D., Melrose, Mass. An Original Article, with Histories of Cases. (Reprint from the Journal of Advanced Therapeutics, August, 1903.)

Some Effects of Tobacco.—J. A. Henton White reports several cases in which the poison from smoking produced symptoms which were concentrated on either the respiratory, the cardiac, or the alimentary system. These exaggerated symptoms all occur in a modified form in seasoned and seasoning smokers who exceed their dose. They also all point to there being such a condition as hereditary incapacity to smoke. In subjects whose alimentary canal is upset, the pain is described as being of a peculiar grinding character. Neuralgia of the thoracic and humeral varieties is another symptom, produced especially by Havana cigars, whether these symptoms are due to a neuritis or a more central affection is disputed—possibly both may occur together or separately.—Birmingham Medical Review.

Original Articles.

TYPHOID FEVER.*

BY D. S. HOGAN, M. D.,
NORTH LOUP, NEB.

In bringing the subject of typhoid fever before you this afternoon I do not expect to revolutionize the subject nor to present anything particularly new; but, realizing its vital importance, I thought it not amiss to spend a short time on the subject for the purpose of interchanging ideas. Typhoid fever has existed probably as long as man; but, known as typhoid, it is a comparatively recent disease. For a long time typhus and typhoid were considered identical. The French physicians did more in the early part of the nineteenth century to elucidate the true nature of typhoid than had any of their predecessors. As a result of the investigations of these men the true nature of typhoid was fairly well distinguished, and since the years of 1840 and 1850 we have known typhoid fever as a distinct disease.

No sooner had the semeiology been settled than another important question, that of its cause, arose among the medical men of the time. Some claimed that it arose spontaneously, while others ascribed its origin to a specific poison with its specific effect. With the aid of modern science it has been conclusively proven that those men who held to the specific poison with its specific effect were correct in their hypothesis. No intelligent physician of the present day will doubt but that typhoid fever is due to a certain bacillus known as Eberth's bacillus. This produces a poison, typhotoxin, which has its specific effect on the system. Young adults, non-residents, are more liable to an attack. Typhoid fever is no respecter of persons; the rich and poor, in the city or on the farm, the high lands or the low, are all attacked according to the sanitary conditions. "It is a filth disease and a so-called water-borne infection, the bacteria gaining access in the majority of cases through impure water. Contaminated milk or other foods; dust contaminated with the bacillus, are sources of infection. Recent writers say that flies and mosquitoes are means of conveying the disease. The specific poison has a noticeable effect on the nervous system; especially is this noticed on the vasomotor apparatus. There is consequently a lack of tone in the muscular apparatus of the cardio-vascular system. This is evidenced by the low blood pressure so frequently observed by the dicrotic pulse of the early stages of the disease."

The various symptoms by which we are able to come to the conclusion that we are dealing with a possible case of typhoid are a general malaise, chilliness not a decided chill, aching of the bones, gradually increasing fever with evening exacerbation and morning remissions, abdominal distention, throbbing of the carotids, enlargement of the spleen and bronchial cough. These are the symptoms that are usually portrayed, but unfortunately for us as physicians we do not meet with all of the above symptoms in every individual case. In this country I am always suspicious when a person with a continued fever, a slow pulse out of proportion to the fever, and throbbing of the carotids, presents himself. If at this period we should get an hemorrhage from the nose we are almost certainly dealing with a case of typhoid. The Diazo reaction of the urine, which is easily obtained and within the reach of us all, would make the diagnosis more certain. The one thing that we should not do is to jump at conclusions and make our diagnosis at our first visit. Give each patient a good, thorough examination and have in mind typhoid fever with every continued fever.

Typhoid fever once established must run its course, which is usually from two to six weeks; more often about twenty-eight days. We as physicians should endeavor to instruct the public as to this point. Very frequently I am confronted with the question, "Doctor, cannot you break up this fever?" while on the other hand I hear of some patient having had the symptoms of typhoid and with the aid of some so-called physician the attack was said to be aborted.

Death in typhoid is due usually to asthenia, the effect on the system of the specific toxin; second as a cause are intestinal perforation and hemorrhage; third, intercurrent diseases, as pneumonia, septicemia, etc.

Given a case of typhoid with the diagnosis clear, the thing that concerns us is the restoration to health. Osler says that typhoid fever runs a course uninfluenced by any known medicine; the duty of the physician is to see that the patient is properly nursed and fed, and if dangerous symptoms arise, combated with appropriate treatment. Although we have no specific in the treatment of typhoid fever, that the physician can do an immense amount of good in the general management of the patient, no intelligent person will doubt. In the first place a rigid prophylaxis is desired. The urine and feces should be rendered innocuous and buried, and all soiled clothes and linen of the patient should be carefully disinfected. No one will question the advisability of keeping the typhoid fever patient in bed in the recumbent position and nourished on a liquid diet, of which milk is the best. This may have to be diluted with lime water, peptonized or boiled according to the condition of the patient. Broth, beef or chicken, may be substituted as a change. The nourishment should be given at regular intervals and likewise should the water. It is generally understood that anything to act vigorously on the bowels should not be given. I usually give some purge, as three to five grains of calomel. After this has acted well I usually depend on enemas of plain tepid water for a daily movement of the bowels. Our main object in the management of the patient is to keep the digestion and bowels in good order so that the patient may assimilate what food he takes. Watch the bowel movements to see that there is no undigested food or casein. If such appear, dilute the milk, decrease the quantity, lengthen the time of feeding or make a temporary change in the diet; control the bowels if possible, remembering that a loose bowel is a bad omen and a dangerous condition, while a constipated bowel is more favorable and we usually rest at ease. The acid treatment for keeping the digestion in good order, as recommended by the early writers, is

* Read before the Valley County Medical Society, October 13, 1903.

one of the best. Hydrochloric acid is the one preferred; a glass of water slightly acidulated with the dilute acid, of which a small amount is given every two hours, will usually give good results. I usually associate with this, for its action on the bowels, a small amount of listerine, also given at regular intervals. Since the pathological lesions in typhoid are in the intestinal tract the object of our treatment should be to make this as sterile as possible. I think acetozone is one of the best drugs we can use for its action on the bowels. It is all that is claimed for it. I have seen the temperature drop from 104 to 101 and permanently remain there till convalescence sets in. The tympanites usually subsides and the delirium is not marked under the use of the above drug. If there is a drug on the market which has any specific effect on this disease, acetozone is the one. My experience with the drug is not to curtail the disease and make it shorter, but to make the individual case much milder. I have run typhoid fever cases through to convalescence the past fall with acetozone alone, and they persistently said they were not sick. Those of you who have not tried it, do so and I think you will be rewarded. For its action on the kidneys, the pores of the skin and general condition of the patient, the sponge bath will have a good effect, but I believe the warm bath is as good if not better than the cool sponge. Stimulants in typhoid fever are usually required sometime during the course, and alcohol and strychnia are the ones depended on. In case of collapse nothing acts better and quicker than chloride of adrenalin.

To recapitulate: 1. The typhoid fever patient should be kept in bed in the recumbent position and not allowed in the upright position for any purpose. 2. He should be nourished on a liquid diet, of which milk is the type. 3. He should have his nourishment regularly and should be encouraged to drink water at regular intervals. 4. An aim should be made at intestinal antiseptics and the digestive organs kept in as good order as possible. 5. For the effect on the kidneys, the pores of the skin and the general condition of the patient, the sponge bath should be used; and last, but not least, the typhoid fever patient should not be drugged too much.

PYREXIA: A PHYSIOLOGICAL PROCESS.*

By W. B. ELY, M. D.,
UNIVERSITY PLACE, NEB.

I hope I may be pardoned for announcing a title which is a part only of my real subject, and a subsidiary part at that; and, second, for inflicting upon this society a considerable mass of matter which is more ably presented in a text-book at everyone's hand. For this paper is chiefly a cursory review of a recent medical work which I have but just finished reading; its study will come later as leisure permits. This work made so deep an impression upon my own mind that I determined, even at the risk of a possible sneer, to present its subject-matter to this society in the hope that discussion may serve to correct or confirm my first impression. I have but one excuse for a course which we usually look upon as a lapse in good taste, and that is the assurance from one who ought to know, that the copy in my hands is the only copy that has found its way west of the Mississippi river. I refer to "Internal Secretions," by Dr. Chas. E. de M. Sajous of Philadelphia. The impression stamped upon my mind upon laying it down at the end, was that this is distinctly the medical work of the century; if the verdict of time justifies its scientific position, epoch-making in its scope and influence, and, in its immediate effect upon medical thought, somewhat analogous to that of Darwin's "Origin of Species" upon the world of biology.

It has always been one of those things that "go without saying," that the medical sciences constitute a so inextricably complex and almost endless volume of fact, theory and hypothesis as to render it impossible that any comprehensive generalization, universally acceptable, will ever be formulated for it. The prediction that such an intellectual feat will never be accomplished has not, to my knowledge, been seriously challenged. And, perhaps, time will demonstrate the truth of the dictum, but in the work under consideration, I feel that I am well within conservative limitations in the statement that its author has made the nearest approach toward its realization that will be reached within the century upon which we have just entered.

In "Internal Secretions" Dr. Sajous has gathered together and collected, apparently from the viewpoint of one not a specialist in the collateral branches of our sciences, pretty much the whole of the salient physiological experiment, pathological finding, clinical and therapeutic observation of all the world up to the present time; woven the inextricable mass into an homogeneous and internally consistent whole, and out of it has formulated a broad plan of medical diagnosis and treatment which gives a new face to all our modes of observation and reasoning, and which presages a future for internal medicine coequal with that of its more brilliant confrere of the scalpel and ligature.

Therapeutic agnosticism, slowly, but certainly nevertheless, during these later years has been spreading its baleful influence in continually widening circles within our ranks, gradually accumulating in the gloomy mountains of uncertainty and doubt, till the brightest promise presented for the future of internal medicine seemed to be that, ere many generations of doctors have passed away, it would be overwhelmed in an avalanche of therapeutic nihilism, buried beneath its benumbing masses and remembered, if at all, only as a relic of a primitive ignorance incomprehensible to enlightened men.

But this latest contribution to our literature plants a new hope within our hearts, and presages a day when the bread pill will be no more and colored water the emblem of unprincipled quackery. The place will be relegated to the limbo of oblivion. For, in the presence of disease, drugs are positive in their action; they do, really and truly, reinforce the physiological forces and work in alignment with the fundamental law of our organism in its efforts to combat disease germs and

* Read before the Lancaster County Medical Society, Lincoln, Neb., December, 1903.

their toxics. Though they lacked the assistance of modern scientific methods of observation, the old fathers of past generations were not so far wrong in their faith in the curative efficacy of drugs as we moderns of late have been wont to assume in the loftiness of our contempt for their "empiricism." They proved themselves to be intellectual giants in the accuracy of much of their deduction, considering the meagerness of the data at their command, and we have gone far astray in the length to which we have wandered from faith in the curative efficacy of judiciously selected drugs. That these old pioneers failed of comprehension of the "why" and "how" in therapeutics, does not militate against the essential soundness of their conclusions. At one time Herodotus was lauded as the "Father of History." At length statements of his were discovered incomprehensible to his students; they "didn't stand to reason" because they passed the comprehension, and in a jiffy he was dubbed the "Father of Lies." But later research demonstrated the truth of the old scholar's story, and the world turned again to worship at his shrine. So in medicine, since the "how" and the "why" of therapeutics are brought clearer and clearer within the comprehension, the disciples of Æsculapius will turn again to his shrine and, with faith reawakened, work with renewed ardor because of clearer vision.

There is a field for real, tangible, effective work for the doctor of medicine even as there is for the doctor of the dissecting-knife and suture, and for a work equally positive in its beneficial results, though it be less immediately palpable to untrained sense, and though it does not strike lettered ignorance with gaping astonishment and stir its garrulous admiration.

Then, my brethren of the pill-box and powder-case, let us be of good cheer in bright anticipation of a brilliant future. The doom of oblivion no longer threatens our horizon, and neither need we despond in fear lest our torch be dimmed in the sanguinary transplendency of triumphant surgery.

While much of our author's deduction, especially in the realms of physiology and histology, strike the reader as almost revolutionary in its radical departure from landmarks we have come to look upon as "established" beyond debate, and prompt to questioning as to its soundness, a careful review of the basis of fact upon which it rests and by which it is buttressed, and a close analysis of the logic through which it is reached, carries him to the same conclusion and compels acceptance.

But, gentlemen, don't let my somewhat enthusiastic language mislead you into any suspicion that its author squints in any measure toward the evolution of another "pathy." There is not a word upon any page in all the work to suggest such a thought or to justify the most freakey in so foolish an attempt. While it is radical in its departure from many "established" theories, it still holds to the old drugs, to their recognized physiological action, and, in a general way, to accepted modes of administration and dosage. What it does aim to do, and accomplishes in a manner somewhat startling in its effectiveness, is to present to us a wholly new standpoint for observation and a new criterion upon which to form our judgments as to choice of remedies and the measure of their dosage. This work is a step, and a very long one, out of blind empiricism and toward a truly scientific system of internal medicine.

The Ductless Glands.—In our medical-school days the ductless glands were a terra incognita. Beyond the palpable fact of their presence, there was about as much positively known about them as though they did not exist. Being present, it was assumed that they must perform some useful function of some sort, which, probably, was beneficial in some unimaginable way.

The only use discoverable for the thyroid gland was to furnish humanity with a goiter to shut off the wind in certain aggravated cases, and to give the doctors a chance to experiment in their removal. Of the suprarenal glands all that was known was that, in some mysterious way, they seemed to sustain a causative relation to Addison's disease. Post-mortem, they were rather frequently found in a palpably diseased condition, but with no assignable relation to the disease that proved fatal. Of the thymus gland and spleen, absolutely nothing was known of them as secreting organs, and the pituitary body was, if possible, the deepest mystery of them all. As to the functions of these organs, all was conjecture, guess-work and more or less limping hypothesis.

But to-day it may be stated with confidence that all these organs have been brought within the realm of the known; that their functions are as well understood as those of the heart, the lungs or the stomach, and they have been found to be of a supreme importance to the organism never suspected or imagined, more than the last decade could have conceived the powers wrapped up in a grain of radium.

The discovery of these new organic functions compels rather wide revision of much of physiological, pathological, histological and therapeutic theory upon which we have relied in the past, and which, properly enough, will be compelled to fight its way into general acceptance. But, the proposition to radical change of view in any branch of medical science should not come as an overwhelming surprise to any of the present generation of doctors, a generation that, within the span of its own life, has witnessed two complete revolutions in fundamental theory—the abandonment of the ancient humoral pathology supplanted by the germ theory of disease, and the complete revision of all our notions respecting the ultimate structure of the nervous system wrought by chrome-silver staining methods through the labors of Golgi, Ranvier and their co-laborers in histological research. So now, if, in the light of these more recent additions to our knowledge, an exhaustive re-examination into the foundations of generally accepted theories reveals their inadequacy, it will be repugnant in the highest degree to the scientific spirit, to carry conservatism to the point of caviling obstinacy. Till we arrive at the end of all knowledge, no theory upon any subject can be so firmly grounded in fact as to place it beyond the probability of revision. It was Tyndall, I think, who said: "The

true scientist holds every theory, even the theory of gravitation, subject to probable revision, in the possibility that a new fact may be discovered inconsistent with it."

Obviously it will be impossible, in a paper such as this, to go far into detail in a subject so extensive. All that can be hoped for is a rapid review touching the most prominent points, omitting pretty much everything except final deductions, and leaving the detail of facts upon which they rest to be studied in the work itself. That my paper will be fragmentary and disjointed is a foregone conclusion. I therefore ask a reservation of judgment till you have tested the soundness of the premises upon which my final conclusions stand, by the array of fact presented by the author in his work.

The establishment of my thesis, that pyrexia is a physiological process, would be the simplest of simple problems if only the premises were universally known and accepted as true. But, since I must, in some measure at least, establish the truth of my premises, the matter becomes much more difficult within the limitations of an evening's paper. Nothing would be simpler than to put the syllogism thus:

Major premise: The presence of trypsin in the circulating fluids of the body is necessary to the destruction of disease microbes.

Minor premise: The digestive energy of the trypsin increases pari passu with rise of bodily temperature up to and including 104°; therefore,

Deduction: A pyrexia of 104° or less is necessary to the destruction of disease microbes and, hence, to a return to health after a microbic invasion. Which is tantamount to saying that a pyrexia of 104° or less, is a physiological process q. e. d.

But all this depends upon the truth of the premises, which very many of you will be likely to call in question without some sort of attempt on my part to show their probability.

I have found no little difficulty in deciding just where to begin, but since respiration and general oxidation is the source of all bodily heat, and pyrexia only an exacerbation of normal heat production, respiration will be as good a starting-point as any. I will state here that, in my mind, the analogy between pyrexia and the process of granulation in wounds is almost exact, in the fact that both are physiological within certain limits of activity and either becomes pathological at either extreme.

Lung respiration has always been recognized as only the beginning of the respiratory process. In some way the oxygen so received into the blood must find its way to the cellular elements of the tissues, to complete the respiratory process, but till now the method of this latter feature of the process has been little understood. The gaseous interchange occurring in the lungs is not, as we all were taught, merely a process of diffusion and endosmosis, but is the result of a true chemical reaction in which CO is displaced from its combination with the blood elements by O, in which reaction the O acts the part of a stronger acid. The CO set free as the result of the reaction then diffuses through the alveolar walls and is carried out of the organism with the expired air, while the O, now in combination with the blood elements, is carried throughout the system wherever the plasma may penetrate.

It is true, as we were taught, that the hemoglobin of the red cells takes up a share of the O brought to it in the air, but it is true also (which we were not taught) that the plasma takes up its share of the O also. This property of the plasma to take up oxygen from the air of respiration resides in a newly discovered proximate principle, the recognition of which is one of the most (perhaps the most) important of recent additions to physiological knowledge. This body has not yet been fully isolated and its formula determined, so, for lack of a better name, it has been called the "oxidizing substance." Sajous suggests "adrenoxine" as an appropriate name for it, in recognition of its source in the adrenal glands and its great affinity for oxygen. My own view is that Takamine's "adrenaline chloride" is a close approximation.

The hemoglobin is not the purveyor of oxygen to the tissues and their cellular elements. A moment's consideration would convince one that it could not act in such a capacity. Tissue respiration takes place in situations impossible for the relatively gigantic red cells to penetrate, in the intercellular spaces and intracellular crypts. Only the plasma can reach these remote recesses. The discovery of the oxidizing substance, freely soluble in the plasma and carrying its load of oxygen in loose combination, renders the modus operandi of cell metabolism easier of comprehension. The plasma, then, is the real purveyor of oxygen to the ultimate tissue elements. The story of this gas carried by the hemoglobin is merely a reserve stock from which the plasma is replenished as the requirements of metabolism and vital cellular function demand.

Capillary System.—Again, our ideas of the capillary system require some slight modification. In its entirety it is vastly more extensive than we have been in the habit of thinking. Besides the minute blood-vessels usually denominated by that term, it includes all the lymph-channels, nerves, muscular and neuroglia cells together with the nerve-fibers of the brain and spinal cord, since they all are built up on the plan of hollow tubes for the transmission of the plasma, which circulates through them with a measure of freedom commensurate with their functional needs, the maintenance of their organic integrity and their reduction to harmless excretory products when worn out. So that, physiologically, all these structures are to be considered as an extension of the capillary system. The entire mass of soft tissues, having active functions, is built up of ultimate cells which, essentially, are hollow tubes for the reception and transmission of the plasma. This conception of the capillary system adds still further to clearness of conception of the details of tissue respiration, and the general processes of cell metabolism and function.

The Oxidizing Substance.—In all the round of the circulating fluids, the oxidizing substance is the proximate element of the blood of supreme importance: life-giving, function-stimulating, disease-combating in the

wide scope of its powers. Its distinguishing characteristic is that property by which it holds oxygen in the grip of a chemical affinity just strong enough to protect the normal elements from its undue action, yet loose enough to be overcome wherever the physiological needs of the system require; a beautifully adjusted balance. This body is the special product of the secretory activity of the suprarenal glands, and is carried into the general blood-stream by the suprarenal veins.

The Adrenal System.—An element of the blood so supremely important must needs be supplied in never-failing abundance, yet in a quantity always accurately adjusted to the continually varying functional requirements and metabolic activities of the organism. So far as may be within the range of possibility the source of its supply together with its controlling center should be protected from all but the most utterly crushing accidents. To meet this requirement, the function of the suprarenal glands is maintained and regulated, under all except the most utterly abnormal conditions, by an autonomous system consisting of the thyroid and suprarenal glands and the pituitary body; a cycle of mutually interdependent organs, the functional activity of each maintaining and regulating the function of the others. The secretion of the thyroid, thyro-iodin, is the normal stimulant of the pituitary body, which is the nervous center in control of the suprarenal glands, whose oxidizing substance determines the functional activity of the thyroid and pituitary together with all the organs of the body; the pituitary body being, probably, the starting point of functional activity for the system.

The Pituitary Body.—We all remember the pituitary body as a little organ about the size of a small pea, "snugly ensconced within the bony cradle of the fossa of the sella turcica, tucked in under a reflection of the dura mater and resting upon a pillow of blood," the circular sinus. So delicately sensitive is this little structure to mechanical disturbance of any sort that the slightest jar, or even the lightest pressure upon it, produces grave symptoms of widespread functional disturbance in all the organs essential to the continuance of life. Well for us it is, indeed, that so supremely important an organ as this structure has been proven to be, has been placed in a situation so remote from the possibility of injury and so surrounded as to be thoroughly safeguarded from violence. This little body, hitherto treated of as a single undivided organ, has been found to be composed of two separate and distinctly different parts with a fibrous lamina between them. Though associated so closely, both anatomically and functionally, the two lobes are as distinctly different in structure as the difference of their primitive sources of development would indicate; the anterior lobe being a development of the ectoderm of the primitive oral cavity, and the posterior lobe from the embryonic brain.

While in its phylogeny the posterior lobe is a development of the most primitive portion of the brain (Foster puts it the "oldest"), in man it is completely separated from the infundibulum, of which, plainly, it is a continuation. A most significant fact in this connection is that the axons of all its numerous ganglionic nerve-cells point directly toward and extend almost completely up to the infundibular partition.

In histological structure the two lobes differ as markedly as the difference in their phylogeny; the anterior lobe being composed very largely, almost wholly, of glandular elements, with no nerve-cells whatever, its nerves being derived wholly from the sympathetic, and ramify in a very complex plexus among its glandular acni and each ultimate filament ending in a simple rounded knob; while the posterior lobe is composed very largely of ganglionic nerve-cells (more than two-thirds) of exceedingly complex structure, with comparatively a very small amount of glandular elements. But it is to be kept in mind that neither lobe is a secreting organ, the glandular acni having quite a different function from that of elaborating a secretion. The ganglionic nerve-cells of the posterior lobe represent ten distinctly different classes or groups of cells,—so different are they as to have induced Berkley to give separate description to each of them,—and of these ten different groups of cells there are four which are nowhere else to be found anywhere in the nervous system.

In function the two lobes are as different as their difference of histological structure—that of the anterior lobe being to regulate the function of the suprarenal glands; so that, hence, it is the all-controlling centre of general oxidization processes and tissue respiration of the entire organism. The function of the posterior lobe, which is the final termination, the "tip-end," so to speak, of the motor area of the medulla oblongata, has been found to be, what the complexity of its nervous elements would immediately suggest, that of the prime ganglionic center of the entire motor nervous system, including the sympathetic. Hence it is the presiding center of all metabolic processes within the organism.

The pituitary body, then, is the "heat-regulating," because the respiratory, center of the organism, if a heart-regulating center exists anywhere.

We arrive, then, at this conclusion: that the pituitary body, as a whole, is something very like to Flourens' "ganglion of life," since tissue respiration, with all that it implies, and general metabolism, with all that is included in that term, make up the sum total of vital phenomena.

Trypsin.—But the processes of oxidation would be imperfect and incomplete unless the matters to be oxidized were submitted to some preliminary preparation. This preparatory office is the special function of another proximate principle recently discovered in the blood, viz., trypsin, the product of the spleen and the ductless portion of the pancreas. It is a digestive ferment, and its office in the blood is to soften and disintegrate any cellular elements, worn-out normal cells, microbes, their toxics, etc., that may become foreign substances. It is the softening action of the trypsin upon the red corpuscles that causes them to adhere to each other and form rouleaux. Under normal conditions it is not carried free in the plasma, but is carried within the bodies of the white corpuscles. It is the possession of this ferment that determines the white

cells to be "phagocytes." The bodies to be destroyed are gathered into the substance, apparently, of the phagocyte, and there, within its vacuole, are digested by the trypsin contained therein, and the cleavage process begun by the reducing action of what of oxidizing substance is present with the plasma in crypts of the cell. The resulting product is then thrown out into the blood-stream, where the cleavage process is continued through the agency of the oxidizing substance till in the end it is reduced to harmless excretory products, carried to the emunctories and there expelled from the system.

Since the trypsin is as efficient in its digestive action upon the normal red cell of the blood as upon abnormal elements, it could not safely circulate free in the plasma. This sometimes occurs as an accident,—in rattlesnake poisoning, for example,—when it becomes fearfully destructive and fatal.

Now, under conditions of general disease the work put upon the free phagocytes is greatly augmented, to rid the system of its unnumbered millions of microbes and the toxic products of their metabolism. Then the energy of phagocytosis must be greatly enhanced or the organism will be destroyed by its invaders. This requirement is satisfied by the fact that the digestive energy of the trypsin increases pari passu with rising temperature up to and including 104° F., and the other fact that, with rare exceptions, a microbic invasion of sufficient extent to produce illness is accompanied with a greater or less increase of bodily temperature. Beyond 104° the digestive energy of the trypsin rapidly diminishes.

So that, in a case of general disease the order of events within the organism is about like this: (1) Penetration of the tissues by the microbes; (2) their proliferation and consequent development of toxemia, which, (3) stimulates the pituitary body and through it the suprarenal glands, which (4) pour out a largely increased secretion of the oxidizing substance. This brings about (5) increased general metabolism with augmented heart's action and capillary dilatation, which floods with the poisoned plasma all the intercellular spaces and intracellular crypts, the charnel-houses for the microbes and the crematories of their toxics, the inevitable result of which is (6) raised bodily temperature with added energy to the toxic- and microbe-destroying trypsin; (7) splitting up of the dead microbes and their toxics into their proximate cleavage elements; (8) complete oxidation of these cleavage products into CO, urea and water; (9) their excretion through the emunctories, and (10) a return to health.

In all this complex round of expedited and augmented vital activity initiated by the microbic invasion of the tissues and fluids of the body and terminated by their destruction and the excretion of their oxidized proximate elements, there is not a step that deviates by so much as a hair's breadth from the straight and narrow path of physiological function. In every minutest detail involved in the whole process we witness nothing but an exhibition of Mother Nature at work to preserve the integrity of the higher organism from the attack of the lower; and that factor in the process, rise of temperature, against which all former generations of doctors have waged unrelenting warfare by every method of attack that scientific acumen could suggest or constructive genius devise, is finally proven to be the chief resource in nature's curative armamentarium. Instead of a destructive process, it is emphatically constructive; not a threat to the sufferer, but a benediction; an angel of mercy, not a destroying demon, and, instead of an enemy to be fought to the death, it is an angel of mercy to be welcomed as the harbinger of ultimate victory over the invading hosts. A pyrexia of 104° or less is not in any sense a pathological process, and Liebermiester and Wunderlick and their confreres of the German school were far in the wrong in their teaching that it is "the chief element of danger."

Perhaps I have overtaxed your patience. If that be so I can only regret my lack of genius to present my subject in attractive dress. For the subject in itself should be of surpassing interest, as I feel it to be of great importance to us as practicing physicians.

If the deductions of this work are at all sound—and with my best endeavor to controvert them I have failed, and, hence, am compelled to accept them, provisionally at all events; i. e., subject to the verdict of time and more extended knowledge—then we have been misinterpreting the significance of pyrexia; the anxiety which it has aroused in the mind of both physician and his patient has been needless, and our strenuous effort to hold it in abeyance has been effort wasted when not injurious. Fever has probably caused more mental worry in the aggregate than any other single factor of illness, perhaps more than all others combined. To the laity, universally, fever is the one symptom that attracts anxious attention, and is watched with greatest fear. The demand that the physician "do something for the fever" is universally urgent, and will not be put off, and so long as the doctor seems to have control of this one symptom, the friends about the bedside feel satisfied. The universality of this feeling throughout the whole body of society, among the educated and well-to-do equally with the poor and ignorant, is a certain index to the view of it taken by the profession at large, for the medical education of the laity is such, and only such, as it receives from the medical profession, only the laity are about a generation behind the medical profession.

We hoped, and the expectation was legitimate in the light of the physiology and pathology of the times, that control of pyrexia would be curative. But, though our control of temperature by means of antipyretic drugs and the various modifications of the bath has reached wellnigh to the ideal, this hope has not been realized, for the course of the febrile affections is as long to-day as before these means of temperature control were introduced into general practice. As a means of conserving the patient's vital powers, there is no doubt that in certain cases the bath has done incalculable good, and, in some, unquestionably curative in its action, on the same principle that inunctions of sulphur are curative in scabies and antitoxin in diphtheria. But in

certain other cases I am satisfied that the bath has been productive of positive injury, because resorted to before the temperature had reached the level at which it reacts destructively upon the trypsin—i. e., below 104°, and because the patient was cooled down below the level of the trypsin's most energetic action.

It is here that the light thrown upon this subject by this most recent work becomes of incalculable value. It gives clearer insight into the indications for heat abstraction. That the patient has fever is not sufficient indication for the bath, not even if the rectal temperature shows 103°. Clearly the bath is not indicated till the thermometer in the rectum shows 104° and there is evidence that it is likely to stay there or higher. Then the bath will act along nature's lines, but the cooling should never be below 102°.

The fact that all our modes of heat abstraction have proved a disappointment as regards any tendency to shorten the duration of sickness, should long ago have suggested that something was wrong with the theory with which we were working. We see now wherein we were wrong: first, in the conception of fever as a pathological process that was "burning up the patient's vital elements"; and second, in resort to methods of heat abstraction when the heat present was no more than was requisite for the greatest energy of phagocytosis.

Had we but stopped to consider it, the teachings of our common experience would have been seen all to point to this inevitable conclusion. Everyone is familiar with the fact that the pneumonia of the aged is rather apt to pursue an afebrile course, and that such cases are almost uniformly fatal. In the light of this recent addition to our knowledge, the reason of this becomes clearly apparent. The vital forces, already reduced by senile changes, tissue respiration and oxidation, go on sluggishly. The presence of the microbes and the toxic products of their metabolism in the tissues and fluids fail to stimulate the pituitary sufficiently to rouse the adrenals to full activity. There is adrenal insufficiency, consequently deficient oxidation for the physiological needs of the existing situation, with the result of a subnormal temperature —i. e., subnormal to the demands of the abnormal conditions present; the trypsin fails of the energizing effect of raised temperature, and the microbes are thus permitted to do their destructive work unhindered and the patient is carried off. And, in a general way, the same may be said of those troublesome cases of typhoid fever, "walking typhoid." Statistics covering that point are not at my command, but, judging from my own experience and observation, these are much more fatal than cases that pursue a more sthenic course. I am satisfied that, if some safe method of superinducing a more active oxidization in the system could be devised—in other words, of stimulating the adrenal system to the point of raising the bodily temperature (an artificial fever, so to say)—very many of these cases could be saved that now die.

My paper properly ends here; but there is a subject of collateral interest, since it relates to increased vigor of phagocytosis, to which I wish to call your attention. I refer to the very wide range of usefulness of injections of normal salt solution, the so-called hypodermoclysis. The exceedingly wide range and great variety of abnormal conditions in which it has proved to be so potent in its curative efficacy, suggests some broad and fundamental function which the sodium chloride performs in the system, the reduction or abolition of which is inimical to proper function of the various organs, or else of their cellular elements, and which, being supplied, is restored.

Experiment by many physiologists has demonstrated that the withdrawal of nearly the whole volume of the blood does not seriously interfere with the vital functions if its place be supplied with the normal salt solution, and a significant feature of this great fact is that exactitude in the proportion of salt in the solution is not essential. The limits of safe variation are very wide, comparatively speaking. The cellular elements of the blood are not absolutely essential to the continuance of life and physiological function of the various organs.

Till the appearance of "Internal Secretions" this fact lacked any intelligible explanation, but this work makes the reason of this universal usefulness of the salt solution clear. Oxidation depends upon the activity of the trypsin. The trypsin requires an alkaline solution in which to perform its digestive function, and by preference a sodium alkalinity; the salt solution supplies this. Furthermore, the completion of oxidation depends upon the presence of the oxidizing substance, and this is just as active in a watery solution as in the plasma. So that, so long as the suprarenal glands are in the performance of their normal function in supplying the oxidizing substance, all the functions of tissue respiration and oxidation and metabolism will continue. How long nutrition would be kept up in a plasma devoid of cellular elements, or how long it would be before the normal cellular elements were elaborated in a plasma of salt solution, I have no data at hand to say. This knowledge becomes of great practical value to us, and makes clear why it is that "washing the blood" becomes curative in so many of the grave toxemias.

Again, we all know that there is deficiency of sodium chloride in pneumonia and all the way through its course. It would be strictly rational treatment of this disease to resort to hypodermoclysis at its very onset and to continue it as long as the deficiency shows itself. I am convinced that the treatment would cut its run materially shorter.

The action of all drugs, poisons, venoms and toxics upon the adrenal system are alike; i. e., they either stimulate or depress its function. But there is a limit where stimulation results in depression or total abolition of its function. This is witnessed in Asiatic cholera, and in tetanus, the terrible spasms of which witness to the accumulation of toxic waste products of metabolism owing to a lack of the oxidizing substance. Here, again, the normal salt solution would seem to be indicated, together with potent adrenal stimulants. Sedatives are emphatically contraindicated. The powerful stimulating influence upon the adrenals explains

the efficacy of Baccelli's mode of treatment of this disease, viz., hypodermic injections of carbolic acid frequently repeated in very small doses. By this method he cured 39 cases of 40 so treated, and Pinna notes "statistics compiled by Ascoli, of 33 cases treated by Baccelli's method with only one death." Here we have 73 cases of tetanus with 71 cures, showing a fatality of only 3.7 per cent. in a disease that hitherto has always been regarded as certainly fatal.

While the action of all drugs, venoms, poisons and toxins are alike upon the adrenal system, either to stimulate or depress, they vary in degree and manner, so that each drug or poison has its own special place in therapeutics. The "physiological action" of drugs is their power to stimulate or depress the adrenal system.

In this paper I have emphasized the idea of cure in contradistinction to relief of pain and other distressing symptoms, and such management of the sick patient as will sustain his vital powers and thus enable him to combat within himself, by the energies of his own physiological forces, the disease present. For, let therapeutic agnosticism shut its eyes as it may to the fact, it is true nevertheless that the very foundation-stone upon which our special vocation rests as the excuse for its existence, is the ideal of cure; absolute cure of disease, in the sense that sulphur inunctions cure scabbies and antitoxin cures diphtheria,—the cure of disease by removing its cause. That we have been unable to attain to our ideal except in a few, very few and isolated instances, is no justification for relaxation of effort to reach it all along the line. Granted, the problem is one of intense difficulty, probably the most difficult because the most intricate that has ever been set before man to solve, the obligation to persist in the attempt to solve it is in nowise diminished by that consideration. Though it be intricate, though it be complex, though its factors are numberless and, at this moment, apparently impossible of satisfaction, its difficulties do not excuse us from the duty of unwearied labor to widen out the circle of "cures" till it comes to include the entire nosology. Every consideration, of duty to society, of humanity, of sympathy to the suffering, and of professional pride, all unite in the demand that the search after "cure," as applied to all forms of illness, be continued with unabated zeal, though the pessimists croak their discouragement. The discovery of a "cure" for scabies contained within it the promise and the legitimate hope of ultimate success all along the line, excepting only cases of organic impairment or destruction, and gave added emphasis to the ever urgent entreaty of suffering humanity to pursue the work so auspiciously begun and never to tire till the ideal is reached. It is small return, indeed, to society for the confidence and trust it has placed in us through all the centuries that we fall back upon the oars in supine indifference to its entreaty and, with self-satisfied vanity in the brilliant achievements of modern surgery, answer its pleading with the bland assurance: "all acute diseases, fortunately, have an inherent tendency to recovery, but, unfortunately, all chronic affections tend inexorably toward a fatal end, and medical treatment can do little to modify the course of either." What denizen of the world of infinite knowledge has descended to this mundane sphere and imparted wisdom such as this? Who knows, or who can know, that chronic disease may not discover to the prying eyes of some future medical Newton its vulnerable point and so be made to yield to internal medical treatment? By what authority does medical pessimism utter its soul-crushing ipse dixit?

Fortunate for humanity it is indeed that the great body of the medical profession is composed of men hopeful for the future and whose zeal in the present feels no chill of pessimistic foreboding, of men who cheerfully accepted the responsibilities of their calling when they sought its honors, and who will labor to the end; and doubly fortunate it is that the medical nihilist is but a rare exception in our ranks—a small and inconsequent class by itself.

The labor of investigation may be arduous, its progress may be slow and discouraging, and its findings, for the time, uncertain, but as surely as the moon will continue to wax and wane in her never-ceasing round, so surely will the great army of medicine pursue its beneficent work, year by year, century by century, aye! and millennium by millennium it may easily be, but never wearying, till a day will finally dawn when doctors will supplant their work of mere amelioration by methods of cure that will reach down to the very citadel of disease.

And it is the fact that, in the work to which I have called your attention this evening, I perceived—or thought I did—a step in this direction, and the suggestion of methods of observation likely to lead us nearer to the goal we all are, or should be, striving after, that I was induced to present this paper. This work is not, and neither does it make the claim of being, the end of all truth; it is but the beginning. In the fact that it brings to our attention a mass of fact wholly new to all except specialists here and there in the various branches of investigation, together with a new interpretation of well-known facts, it affords valuable hints to new modes of inquiry into the various diseased conditions which we meet every day and opens to us great possibilities in the way of perfected methods of treatment.

Doubtless the conclusions of this author will strike you, as they struck me, as radical in their departure from much that we have come to regard as "established." But we are not Chinese, and neither do we live in a Chinese environment. Ancestry worship has been evolved completely out of the American cult. Age does not hallow ideas. With Huxley, the medical profession looks upon things old with suspicion of their truth. And a profession that, within the span of its own life, has witnessed two complete revolutions in scientific thought, should find no insuperable difficulty in the entertainment, and perhaps acceptance, of this latest candidate for scientific recognition, which reaches yet deeper than the germ theory into the foundations of disease, immunity and health. Whether or not its deductions are justified by the ensemble of fact, time will develop. Its author is not over-confident of

the invulnerability of his conclusions, though confident that the general outline will prove to represent scientific truth. In the preface he says:

"Can we pretend that, owing to the care with which our investigations have been conducted, our deductions are invulnerable? We only formulate this question to answer it negatively. The working methods adopted, however, do not seem to us to have rendered any serious deviation from the straight path possible. All theories, even those advanced by the greatest authorities of the nineteenth century, were totally ignored; our purpose being to treat each question as though it had been a mathematical problem. Positive data alone were used as factors. Preconceived conclusions were under no circumstances allowed to prevail, and the solutions were only formulated after each question had been submitted to analysis, then to a reconstructive, or synthetic process. * * * But the fact that such men (Erlich, Gautier, Abel, Crittenden, Vaughan and their compeers) were available to promptly correct any errors we might have made, gave us confidence to proceed with the work without undue anxiety."

COLOSTOMY: TECHNIQUE OF OPERATION AND RESULTS.

By R. D. MASON, M. D.,

OMAHA, NEB.,

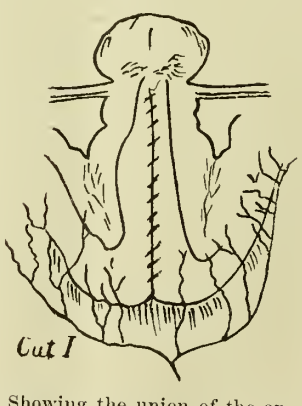
PROFESSOR OF RECTAL AND PELVIC SURGERY IN THE JOHN A. CREIGHTON MEDICAL COLLEGE; SURGEON TO ST. JOSEPH'S HOSPITAL.

The question of changing the course of the fecal current in inoperable affections of the lower bowel and causing it to flow from the body in some other place than that intended by nature is one that has been before the profession from the earliest recorded history of surgery. Many think that it leaves the patient in a condition pitiable in the extreme and disgusting to himself as well as to those around him, and that death would be preferable. As the operation was formerly done this was true, but modern surgery has so improved the technique, and nature's method of closing the external orifice by a sphincter muscle is so closely simulated, that many of the unpleasant features are eliminated.

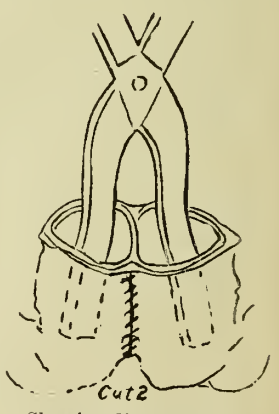
There are two general indications for doing this operation. The first is to divert the fecal current from the lower bowel temporarily until operative or other measures have cured the disease below when the artificial opening is closed and the natural channel again established. The other is to make a permanent artificial anus, because of inoperable disease or malformation below the opening. Until within recent years a temporary opening was seldom made, but if an opening was made the patient was expected to carry it with him to the grave. At the present time an opening is made more often than should be done, and for insufficient reasons. If such an operation seems indicated, all sides of the matter should have careful consideration, and it should never be done except for good reasons, as there is considerable danger in making the opening and even more in closing it. Wheeler estimated the mortality at 25 per cent., but this was before the days of aseptic surgery. It should also be remembered that many patients are almost ready to die when they come for operation. Of course in perfectly healthy subjects, if proper precautions are observed, there should be a very small mortality, probably not more than 1 or 2 per cent.

While the operation for either temporary or permanent colostomy may not be considered as major surgery, they both require an attention to detail and technique of the most painstaking character. Nothing that I can think of will cause more suffering and mental agony during the remaining life of the patient than a poorly done colostomy.

I will speak only of the operation as done in the left inguinal region, as this is the one most often done. In doing the operation, for temporary purposes make an incision about two inches long one and one-half inches above the ant. sup. spinous process, crossing an imaginary line drawn from the process to the umbilicus, about one-third above and two-thirds below the above line. After going through the skin and superficial fascia, the fibers of the internal and external oblique are separated but not cut. After dividing the peritoneum it is brought out and attached to the skin with fine catgut. Next the colon is searched for and usually found with but little trouble. Here an important point is to be observed, and that is, to draw the upper portion of the colon down until a short mesentery is found, letting the redundant portion pass back into the abdomen through the lower part of the incision. If this is not done, there is sure to be a prolapse of the upper part of the gut, which will be very annoying to the patient. The next important point is to get a good spur; that is, to get the bowel out far enough so that all the fecal matter coming from above will pass out of the bowel and none of it go into the lower portion.



Showing the union of the apposing posterior walls of bowel.—Copied from Bryant.



Showing division of septum with clamp.—Bryant.

As this is to be a temporary opening, it is important that some arrangement be made so that it may be closed easily when it is thought best to do so. In order to do this the bowel should be pulled out and the two apposing edges united by catgut ligatures for two and a half to three inches to prevent coils of small intestines or other structures getting between and being clasped in the clamp that is used to divide the walls

ıter. This particular part of the operation should be redited to Bodine, who originated it. (See Cut 1.)

The bowel is now dropped back into the abdomen ntil the posterior wall is level with the skin. A glass od is forced through the mesentery just beneath the owel wall, with the ends resting on the abdomen at ach side of the opening to hold the bowel out suffiiently to make a good spur. The skin and bowel wall re now carefully united with silk all the way around. f this is not done, other coils of intestine may be orced out by the side of the one intended to be out.

If the necessity for opening the bowel is not urgent, t should be left for forty-eight hours until adhesions ıave formed so that the peritoneum may not become nfected. When the opening is made cocaine may be ısed and the bowel pared off about one-half inch above he skin, leaving a typical double-barrel opening.

When it is desired to divert the fecal current to its ıatural channel again the three-inch septum may be ut through by applying an ordinary long-jawed forceps and leaving it on until it cut itself loose. (See Cut 2.)

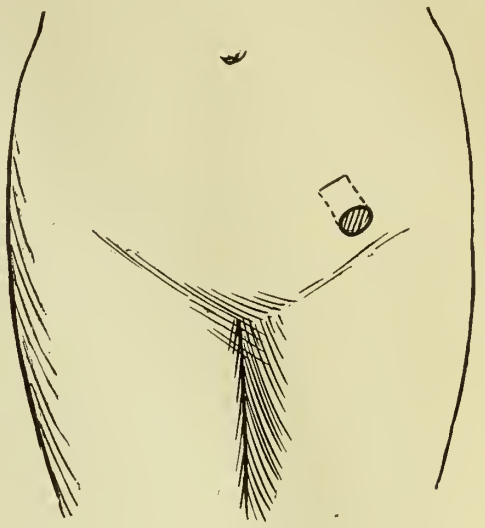
Should the external opening not close entirely, a slight plastic operation may be done under cocaine anesthesia to close it.

In case the artificial opening is to be permanent, a different method should be employed. The incision should be made about an inch nearer the umbilicus than in the other case. The peritoneum is not brought out and stitched to the skin. The bowel is brought out and pulled down until a short mesentery is found and then cut in two, the lower end of the opening closed and dropped back into the abdomen. We now have nothing but the upper end to deal with. Another incision is now made the same length as the first one an inch below and parallel with it, extending through the skin and superficial fascia only. The bridge of tissue separating the two incisions is now undermined between the superficial fascia and the external oblique and the bowel drawn through the tunnel thus made and stitched to the edge of the opening. The upper opening is now closed down to where the bowel makes its turn into the tunnel.

We now have not only the fibers of the two oblique muscles closing the bowel but we also have the bridge of skin shutting off the end and acting as a sphincter muscle. This will allow but very little, if any, leakage and considerable force must be applied by the abdominal muscles to cause fecal matter to be expelled. (See Cut 3.)

This is nearly the same operation as described by Tuttle in his new work on rectal surgery, but varies in some of the details, especially in dropping the lower end of the bowel back into the abdomen. I believe that the risk incurred in dividing the bowel and dropping it back is so small compared with benefits derived that it is better that it be done.

With the improved methods of treating malignant and syphilitic rectal diseases, together with improved methods of making an early diagnosis, the indications for doing colostomy operations are less than formerly existed. It is of course an operation to be avoided if possible. At the very best it is an operation that has a very depressing mental effect, and many patients suffer very severely because of the unnatural opening, even though from a mechanical and surgical standpoint it works to perfection. Yet in spite of this the patient's life may often be prolonged and much physical suffering avoided by a properly done colostomy. They soon learn how best to care for themselves, and by the



CUT 3.

use of snugly fitted bandages, or in some cases steel springs in the form of a truss, they have but little trouble and pass the remainder of their days in comparative comfort. It will, beyond doubt, prolong life, in some cases a year or more,—and by relieving pain, checking diarrhea and hemorrhage, and preventing the almost complete obstruction that occurs in nearly all of these cases, the patient is more than repaid for the care and inconvenience he is obliged to give the unnatural opening.

I know of no more helpless position in which to place a surgeon than to have to care for a rectal cancer in its last stages unless he be allowed to seek relief, not only for the patient, but for himself, in a colostomy.

HEALTH AS A DUTY.

BY E. BENJ. ANDREWS,
LINCOLN, NEB.,
CHANCELLOR OF THE UNIVERSITY OF NEBRASKA.

The pairing of these words, "health" and "duty," may at first seem queer, but I hope to justify it.

Some people hardly prize physical soundness for any reason. They seem literally to "enjoy" poor health. Among such as duly prize health the majority probably prize it not because they think they ought to but as an exercise of legitimate selfishness. Their desire to be well is reflex and spontaneous, not reasoned, not an affair of motives in any way. Like the will to live, it is neither moral nor immoral but simply non-moral.

That merely vital, non-moral prompting to health is a fine thing. I would not lessen it. If it possessed the entire public in due degree my remarks would be quite superfluous. They might even be mischievous, for a natural impulse is not seldom weakened by analysis and introspection, as a man may be made dyspeptic by

studying stomachs. A house good for a century may be rendered rickety in every wall by picking out its original foundation to put in a new which is better.

I despise all mere fussiness regarding health as heartily as any man in the world. It is said that the distinguished English preacher, Robert Hall, when he was somewhat advanced in life, would every little while grab at various portions of his anatomy to make sure paralysis had not struck him. I am told on good authority that usually when paralysis actually does overtake a man he doesn't need to investigate.

Even physicians, wise as they are, sometimes take a shadow for a lion.

A curious document has been preserved in the archives of the Nuremberg-Furth Railway, the earliest of the German lines, opened in 1835, which relates that on December 7, that year, a special "Kollegium" of the Bavarian physicians was summoned to discuss the medical aspect of "the new method of traveling by steam machines." The assembled doctors arrived at a nearly unanimous conclusion that a too frequent use of rapid transportation would produce amongst the unhappy passengers an unprecedented increase of the malady known as "delirium furiosum." "Even if it be conceded," said the physicians, "that the travelers voluntarily expose themselves to this danger, and that the state ought not to interfere with personal liberty in such a matter, we nevertheless feel bound to advise, by virtue of our calling, that the state should at least interfere for the protection of the on-lookers. We are confident that the mere sight of a steam locomotive dashing along at the extreme of its speed will be sufficient to produce this fearful malady in persons of a nervous and susceptible constitution. We therefore humbly advise the public authorities to require that walls shall be erected on each side of the railway track not less than six feet in height."

But moral and religious exhortation in aid of health should not be considered fussy. Every community contains ailing men and women who are capable of health yet rarely possess it for any length of time, apparently, to a great extent, because they never think of health as obligatory. My words are for such. Many of the persons meant are in most matters highly conscientious, but in this particular their consciences are asleep, untrained, or seared. I would reason with those sinners, re-enforcing whatever merely vital desire for health they may possess with appeals to their sense of right and wrong. Particularly would I attack the medieval vice, which still affects many who do not avow or perhaps suspect it, of supposing that we somehow elevate the spirit by snubbing and flogging the flesh.

It is our duty to possess physical vigor if we can, whether we delight in it or not. Unless that is a duty there is no such thing as duty. Health is within our power to a much greater extent than most suppose. Even congenital complaints can be cured. Other troubles of the kind born with us, though not curable, can be greatly alleviated. In persons not diseased at all, the life processes may be improved in tone, producing solider and more perfect specimens of the race. The resultant men and women will average to live more years owing to the care exercised. Each year they stay on earth will be happier. They will be more efficient and useful. They will impose less care and expense upon friends. Their fellowmen dealing with them will find the converse pleasanter. Offspring, if any, will be worthier to exist.

Health is important that we may live, think, feel and act strongly so long as we live, think, feel and act at all. To say that life ought to be is equivalent to saying that it ought to be as whole and virile as it may. If we are puny and ailing, unless the defect springs from causes beyond our control, we are guilty. Let life be short if it must, but let it be full. While our blood runs let it run red and swiftly. Men and women who dawdle mostly might as well be dead. They effect little toward any end for which human existence can have been meant.

Even religion, spirituality, proper preparation for heaven, calls for health. The most orthodox now-a-days think saintliness to be of little account unless it is of the active order. Christians, I hope, more and more incline to model after the Great Saint who went about doing good rather than after saints who simply sit still and mope, meditate and pray.

In any calling you will find that the active, efficient men, the men who bring things to pass, are those physically the strongest, able to work long hours and yet carry their faculties fresh to the end. Study Congress, for instance; seek out the influential members there and see if the rule I announce does not hold. Then go to any of the great trusts or massive businesses characteristic of present industrialism. You will find the leaders to be men of Herculean physical vigor.

Obviously this must be the case more and more as life grows increasingly complex. Massed industry is henceforth the order. To attain important position in any department of it one must be able to endure like a Titan.

Some one will object that valetudinarians now and then accomplish great things. A few such can no doubt be pointed to; but if you inquire carefully you will in nearly every case find the fact to be about this: Some initial frailty in the man led him to take such excellent care of himself that after a time though apparently feebler than most he was really tougher and heartier than most. The occurrence of influential valetudinarians does not disprove my reasoning but rather confirms it.

Health is an inconceivable aid in intellectual activity. It gives sweep, compass and volume to mental work and mental stores. When perfectly well we learn longer lessons, master each point more easily and thoroughly, and remember better. Brain will not do its best if blood is impure or stagnant. When you are ill the mind wearies easily, mental exertion being a drudgery and therefore relatively valueless even while it continues. Reasoning becomes confused, trains of

ought needing repetition after repetition in order at you may be sure of them. One reasons well only nen one digests well. Mental peristaltic motion nits upon bodily peristaltic motion.

Good animality is absolutely indispensable to sane inking. Judgment is the noblest and most impor- nt among mental functions and it is notorious how pendent it is on good bodily condition. How many anks are so because of lymphatic difficulties!

Health is needful not alone that we may do with our ight what our hands and minds find to do, but also at we may fulfil all our functions with ease, smooth- ss and grace. Next to vice and crime the greatest rse afflicting humanity's lot is men's crabbedness. ow few efficient men are courteous! People are sel- om at the same time frank and kind! Some are too wardly to tell you what they mean; others indeed ep back nothing, but bellow or bray to you instead f speaking.

This objurgatory temper and manner so common mong men nearly or quite always has its seat in ill ealth. Liver, stomach, nerves, the blood—something, me part or function of the physical organism is out f gear. The fire flies because of grit in the bearings. Even if you make much of men's depravity, alleging hat some are grumpy by nature, the evil based primar- y not in the body but deeper, in the spirit, you must dmit that even in such cases ill health gives it its aming malignancy. The custom of sending medical issionaries along with other missionaries to the eathen world has a significance beyond what appears. A health agency is not the veritable Gospel, but it is he Gospel's best possible ally.

Men need health in order to that inward tranquility, alm and balance so indispensable to soul-growth as vell as to physical or mental enterprise. So congested ave the avenues of life become in these latter days, hat mental poise, serenity, the peace that is like a iver, are well-nigh impossible at best, and they are uite so if bodily pains or weaknesses help distract. To commune with oneself or with God is vastly more ifficult now than in Abraham's day.

"Who can see the green earth any more
As she was by the sources of time?
Who imagines her fields as they lay
In the sunshine, unworn by the plough?
Who thinks as they thought,
The tribes who then roamed on her breast,
Her vigorous primitive sons?

"This tract which the river of Time
Now flows through with us, is the plain.
Gone is the calm of its earlier shore
Bordered by cities and hoarse
With a thousand cries is its stream.
And we on its breast—our minds
Are confused as the cries which we hear,
Changing and short as the sights which we see."
—Mathew Arnold, "The Future."

Health builds up and sets forward our moral en ergies as much as it does our bodies and minds. It breeds courage and will-power, lack of which is often the sole reason why men do wrong or fail to do right. It furthers self-discipline and self-control, repressing vices and physical excesses, partly by giving rational vent to surplus physical force. It is favorable to a sense of fairness toward one's fellows, thus making for co-operation between men and men.

Nor is this at all refuted by the fact, if it be such, that funny men sometimes live out but half, or, say, six-tenths of their days. One time when Grimaldi, the great comedian, was making all people split their sides with laughter over his witticisms a patient presented himself to Dr. Abernethy, the celebrated practitioner. The man was dying of ennui. Go and hear Grimaldi, said Abernethy: he will make you laugh and that will be better than drugs. My God! exclaimed the invalid; I am Grimaldi! (Lombroso: The Man of Genius, p. 24.)

Emerson, in Society and Solitude, tells the same story of Carlini.

A jokewright may certainly die of the blues, but his blood will be the seed of the church. My conviction is that if perfect physical health universally prevailed, nearly all men and women would come so near being angels that building-lots in the promised land would be in danger of slumping in value. Who would not be glad to initiate such a "bear" movement? Not to mention the delight of living in a society where none ever pouted or whined or scolded or made wry faces or vociferated or swore, consider the delightful ease with which business would go on then, and the greater amounts of it which we could turn off in a given length of time. As a promoter of the world's work model health would rank with inventions like the steam-engine, the telegraph and the telephone.

Health of course tends to long life, and this is certainly a consideration of great moment. There are, I know, many—and I am one of them—to whom length of days does not seem important personally. When we find that life does not redeem its promises, that men are mean, false, self-seeking, and merciless, that to succeed here below you must call the little great, the sham genuine, and appearance reality, the heart-wrenching disillusionment drives us to long for a world of more righteous judgments and awards. Few lives, and no great ones, are spared this bitterness. You strove for earthly good: gold, honor, position, prosperity, and enjoyment, and you found like thousands before you that these objects cannot satisfy the heart. You let imposing things deceive you; beauty and truth you sought to gain by chasing them; and now after many a long and devious race you are deceived and in despair. Once you marched forth to fight for right and freedom, but you grew weary, yielded, and made your peace with the world. This disillusionment, too, impels one to long for a higher life, for redemption from such vanity, woe and death. Existence seems illusory and cruel and the weary soul cries with Goethe:

"Ceaseless ache! inane endeavor!
What boots all the fierce unrest!
Peace, like a river,
Come, oh come and fill my breast!"

But from a social point of view it is certainly desirable that any life having value should continue so long as its efficiency remains. The ingenuous man, though not prizing length of days as a good to himself, must still cherish length of days that he may perform maximum service for his kind.

When society has matured a man, educated him and succeeded in imparting to him a certain value, power to enrich men's general estate, it cannot but be a pity for his life to end in the midst of its prime and vigor. His gain, if death prove such, must be society's loss. He should solemnly vow, as did one of old, "All the days of my appointed time will I wait until my change come."

Health is required that men's blood may contain the necessary iron—that we may possess the hardness or hardiness of good soldierhood, grit, sand. I should rather nurse cold steel in my own heart than have an enemy drive it there.

Are not cultivated people growing too sentimental; too timid about inflicting pain on animals, children, themselves, and others? The common argument against war is sound; but is not the common sentiment against war mostly a downright weakness? Is not anti-vivisection the same? And do not these phenomena indicate a very serious lack in our moral character as a nation? Would not a sterner nation in competition with us, other things being equal, get the better of us?

It seems to me that Englishmen's hardheartedness has been one very important factor in their success on earth. So of Rome.

"For Romans in Rome's quarrels
Spared neither land nor gold,
Nor son nor wife, nor limb nor life,
In the brave days of old."

"Has a nationality ever sprung from a people that had not the power of hate? The devil must add his leaven to the loaf or the bread is no food for time."—Francis Adams, "The New Egypt," p. 104.

The late Sir James FitzJames Stephens ("Liberty, Equality, Fraternity," page 220) thought that in the particulars just named modern England was falling behind Old England. He had little "enthusiasm about progress" anyway. He said: "I suspect * * * that people are more sensitive, less enterprising and ambitious, less earnestly desirous to get what they want and more afraid of pain both for themselves and others than they used to be. If this should be so it appears to me that all other gain, whether it be wealth, knowledge or humanity, affords no equivalent * * * I do not myself see that our mechanical inventions have increased the general vigor of men's characters."

Health is necessary, more particularly, that a man may will and purpose strongly in the great crises of his life. On ordinary occasions, discharging common business, following routine, one may get on tolerably with little robustness. In walking just for exercise you may limp; it does not matter very much. But in a race, limping spells failure; and the few decisive moments in life, which determine the weal or the woe of it, its success or failure, are each strenuous like a footrace, calling for infinite lung and heart power and omnipotent nerve. Such a man is described in the ode of Horace beginning Justum et tenacem propositi virum—

"Not the rough tempest that deforms
Adria's black gulf and vexes it with storms
The tranquil temper of his soul can move,
Not the red arm of angry Jove,
That flings the thunder through the sky
And gives it rage to roar and strength to fly.
Should the whole frame of nature round him break
In ruin and confusion hurled;
He unconcerned would hear the mighty crack
And stand serene amidst a falling world."
—Addison's translation.

The greatest of all life's crises is the one which ends life, and that, like all the tugs of war before, is aptest to be bravely met by him whose spirit has been buttressed upon a sound physique. As protested in the last lines of Browning's "Prospice,"

"I would hate that death bandaged my eyes and forebore,
And bade me creep past.
No! let me share the whole of it, fare like my peers,
The heroes of old;
Bear the brunt, in a minute pay glad life's arrears
Of pain, darkness and cold.
For, sudden, the worst turns the best to the brave,
The black minute's at end,
And the elements' rage, the fiend voices that rave,
Shall dwindle, shall blend,
Shall change, shall become first a peace out of pain,
Then a light, then thy breast,
O, thou soul of my soul! I shall clasp thee again
And with God be at rest."

A true man must wish health that he may run the least possible risk of ever becoming a burden to others. The fact deserves emphasis that health is absolutely our only at all certain guaranty in this vital matter. Wealth is here no surety whatever; family, position, influence, and power just as little. Wealth may preserve loving hands from slaving for you when you are an invalid, but it can never keep loving hearts from breaking for you when you are an invalid.

Ill health not only renders you a source of care to your friends but makes you more liable than if you were healthy to acquire disease and spread it through the community, a possibility which increases as society condenses.

No doubt eminently fatal acute diseases may prevail in a population where the standard of health is high. That is why "a high rate of mortality may often be observed in a community where the number of persons affected with disease is small." All the same, healthy persons are the most immune in such cases, the weaklings serving as the centers of infection.

"On the other hand general physical depression may concur with the prevalence of chronic maladies and yet be unattended with a great proportion of deaths." (Kay, Moral and Physical Condition of the Working Classes, p. 17.) Leckey (Map of Life, Conduct and Character, p. 15) observes this, adding that such an anemic condition of large numbers in a population is ministered to by sanitary science itself, also by the modern rush of people to cities. He thinks it very doubtful whether our improved standards of living and our improved knowledge of sanitary methods altogether counteract this tendency to low vitality. May not a moral conviction in favor of good health be aroused and spread abroad, which shall re-enforce sanitation and standards of life so as to lift up men's average vigor of body? By aiding in this we shall put hosts of men in a way not only to avoid burdening others but to be burden-bearers for others less fortunate than they.

I bring forward lastly an argument for health more solemn than any of the preceding, the necessity of cul-

ivating and insisting on perfect health in order that our offspring, if we have such, may be strong and happy.

Mere human life, a voluminous census, no thoughtful person can regard as a desideratum. Quality of population is more important than numbers. Recent utterances of President Roosevelt on the subject need radical amendment without which they are calculated to do vast mischief. The Chicago Tribune, February 22, 1904, had the following: "Theodore Roosevelt Morgan, Fourteenth Son of Anti-Race Suicide Club Founder, Lives One Month.—Theodore Roosevelt Morgan, fourteenth son of Felix Morgan, president and founder of the Theodore Roosevelt Anti-Race Suicide club of South Chicago, died Saturday night and was buried yesterday afternoon. The child was only a month old. Its funeral was attended by the forty members of the club, each of whom brought his children. Ten are required for eligibility to membership."

Voluntary refusal to assume parenthood is not in all cases censurable but in many extremely commendable. Not a few married people are so diseased in body or mind that they could not have offspring without being guilty of crime. To increase the number of defective human beings or of those whose existence must inevitably be attended by suffering, so far from being praiseworthy, is a base, unsocial, immoral act. Such a parent is guilty of crime against society, which must pity and support his defective progeny, and of crime toward such progeny themselves, fated to pine, languish, suffer and die in consequence of his malfeasance. Herein is turpitude beside which that of highway robbery, of arson, or of murder turns white.

On the other hand parents able and willing to produce, educate, mature and send out into society healthy children are public benefactors of foremost rank, compared with whom donors of charity-millions become insignificant. Dr. Francis Galton, F. R. S., in his Huxley memorial lecture of October, 1901, fittingly called attention to this. He declared a babe born of perfect parents and giving promise of living the normal time worth to the public thousands of pounds sterling at the moment of birth. Children of this kind, he said, grow up to increase the wealth of multitudes and to amass large fortunes themselves, besides being of incalculable value to the nation through the intellectual and spiritual stimulus they impart. Dr. Galton urged that state, society and individuals in every possible way encourage young men and women of high character, intelligence, energy and physique to marry and rear families. Certain of the means suggested by Galton for realizing this end smack of artificiality and utopianism, but his main idea is sound. Effort to improve humanity without first radically elevating the average quality of parenthood is like trying to put a 1500-pound Hereford carcass onto a Texas steer of the old long-horn type by means of condition powders and patent meal.

I close with a pair of words touching a few abused or neglected means of health.

The perverse dislike and avoidance of physicians is as unfortunate as it is common. Much ill health and many deaths are traceable to it. To imagine illness is of course weak,—and the habit of resolute resistance to threatened ailments is in general most commendable. But this is often carried fatally far. The wise way is whenever ill symptoms suspiciously persist, to call a physician or call on one.

Blessed be gymnastic exercise, and, as a rule, blessed be athleticism. The fact that our colleges and universities are now health-factories is among the most promising data in American life today. Call this a fad, if you will; a good-health fad is certainly better than a bad-health fad such as once prevailed.

But hygienic exercises may easily be made too set, formal, or concrete, and, with many, they are certainly in danger of becoming too severe. Let us train for record by all means, but let it be a health, strength and longevity record rather than a pole-vault, shot-putting or hammer-slinging record. I always exercised in the gymnasium till crowded out by younger men. I will not deny that my retirement was partly due to the discouragement following pretty uniform defeat. But there was one event in which I always bore off the palm, in which today I hold the world-record and am pronounced a wonder by all who have seen me perform. That event is moderation.

The numerous athletes and trick-gymnasts of both sexes airing themselves over the cubic feet of air they can blow into the bag, the size of their biceps, and the various records they've made, must not be let lead the less accomplished of us to think exercise of no account because it is informal. Methuselah and Samson never trained in a gymnasium, and not one per cent. of the people in any modern community can do so. I plead for forms of health-work suitable for both sexes and all ages, at odd moments, without teachers, set uniforms, rigid hours or rules. Walking is such; so are slow running, throwing, cultivating a vegetable or a flower garden.

Middle-aged and elderly people ought to have more fun, play, diversion. Don't let the kids monopolize these. Avail yourself of all good incidental pastimes; games, concerts, joking, light converse, novels. In proportion as your work interests you there is danger of protracting it too long at a stretch. Change of work avails little. There is but so much nerve energy in a man at any time. Quit work and relax. Every one also needs systematic, studied, professional diversion —an avocation. Be an amateur expert at some craft other than the one which earns you bread—mountain climbing, golfing, boxing, rowing, hunting, keeping bees, rearing horses, cattle or dogs. Microscopy is a splendid avocation. Systematic reading is another. Best of all avocations, however, are the various forms of art life and work. Without ever tempting to excess or suggesting what is base they round out, embellish and enrich character and inspire devotees for occupations which are more serious and more immediately and obviously valuable.

Special Article.

A CASE OF NEURITIS OF THE BRACHIAL PLEXUS, WITH AUTOPSY.*

By W. E. TAYLOR, M. D.,
CLEVELAND, OHIO.

The observation, followed by autopsy, which I have the honor of presenting to the society, treats of a case of neuritis of the brachial plexus. The case was observed at Salpetriere, in the service of my preceptor, Professor Dejerine.

Observation.—Acute pain and muscular atrophy in the region supplied by the ulnar nerve of the right side. Progressive generalization of the pain and muscular atrophy in the forearm and in the arm. Marked hyperesthesia on pressure over all the brachial plexus from the sub-clavicular triangle to the terminal extremities. Duration of the affection, fourteen years.

Autopsy.—Neuritic lesions of the ulnar and of the median nerves diminishing in intensity toward the upper portion of the arm. Atrophy of several cellular groups of the corresponding anterior horns.

The patient, a seamstress, dying at the age of 69 years, did not give anything worthy of note in her family history and was not alcoholic. No stigmata of syphilis. Married at 20 years, she had had two healthy children and a miscarriage at seven months, the result of an accident. The trouble in the arm had begun the first time at the age of 55 years, with very severe pain in the last two fingers of the right hand, the pain increasing gradually in severity and extending rapidly to the whole arm. The pain was acute, continuing day and night and severe enough to make sleep impossible. The least movement or the least pressure increased the pain to such an extent that the patient could not continue her work. At the end of six months the pain, which up to that time had never ceased, commenced to diminish progressively and at the same time the patient noticed the appearance of a sciatica of the right side which lasted several months. At the end of this time the pain in the leg had diminished sufficiently to enable the patient to resume her work. The pain in the arm disappeared to an equal extent; she was not hindered in the least from working, could feel and manage her needle and thread and had no trouble in controlling her right hand. Except for two attacks of hepatic colic she remained quite well. Six years after the first attack of neuritis she awoke one morning after a very fatiguing day's work, with acute pain in the right hand and forearm and noticed at the same time that she could not extend the last three fingers which were forcibly flexed on the palm of the hand. In spite of electrical treatment continued for four years, considerable muscular atrophy progressively developed in the arm. The patient entered Salpetriere in 1899 presenting the following symptoms: The right arm presented throughout its extent a considerable atrophy decreasing toward the axilla. The fingers were immovable and in semi-flexion in the palm of the hand, the thumb in extension and adduction. Passive movements for extending the fingers were difficult not only on account of the retractions, but also on account of the pain. The thumb had some limited movements in flexion, extension and adduction, but not in abduction. All the muscles of the hand were atrophied, particularly the thenar and hypothenar, eminences, which had completely disappeared. The flexors and extensors of the forearm showed a very marked diminution in size with considerable limitation in their movements and a diminution in strength. The muscles of the shoulder and also the pectorals showed only an insignificant diminution in size, the other muscles appearing normal. The reflexes were normal. Reaction of degeneration in the muscles of the hand.

Sensibility.—A decrease in sensibility for contact, pain and temperature in the little finger, the inner aspect of the ring finger and in the skin covering the thenar eminence, a decrease in sensibility also upon the palmar surface of all the fingers and of the hand. Upon the inner aspect of the wrist there was also some reduction in sensibility which almost entirely disappeared on leaving this region, and the rest of the arm perceived touch and pain almost as well as the left arm. The thermo-anesthesia was more pronounced and more generalized; very marked in all parts of the hand and of the fingers innervated by the ulnar nerve, it extended, although diminished, over the entire arm and shoulder. The osseous sensibility (to the tuning fork) was equally diminished in the right arm. The brachial plexus (ulnar, median and radial) all the way from the spinal roots to the hand was very tender on pressure. The nerve trunks were not swollen. The muscles were equally painful on pressure. The left side was normal as to motility and sensibility except at Erb's point which was painful on pressure. There were no stigmata of hysteria. The pupils reacted normally, the right being a little smaller than the left. There was some nystagmus in extreme positions of the eye-balls. The patient had urgent micturition, a trouble which had commenced several months before her entrance to Salpetriere.

The other organs were normal. No trophic skin disturbances. Lower extremities intact. Patellar reflexes normal. Treatment by iodide of potassium 3 grammes per day. Two years later (1901), the symptoms were ameliorated. The atrophy had diminished very much and there remained only a little atrophy in the posterior part of the forearm with some weakness in the muscles of the part. The muscles of the hand were nevertheless as much atrophied as at the beginning but there was a return of some movements in the index and in the middle finger. The impairments of sensibility were a little diminished, but in general showed the same characteristics as at the date of entrance to the hospital. The patient died in April of 1903, six months later, with an attack of hemiplegia.

Autopsy.—Osseous walls of the vertebral canal normal. Dura mater normal on both sides. The spinal marrow did not present, to the naked eye any sort of

*A study undertaken in the service of Professor Dejerine. Extract from the Revue Neurologique, February 29, 1904. Translated by L. B. Pilsbury, M. D., Lincoln, Neb.

appreciable lesion. No trace of exudate in the course of the cervical, dorsal, and lumbar roots. The roots of the brachial plexus did not present any traces of compression either intra- or extra-spinal. The brachial plexus itself was dissected throughout its entire extent and no traces of compression were found, either in the sub-clavicular triangle, or in the axilla, or in the course of the peripheral nerves (median, ulnar and radial). The peripheral nerves were of the normal size except for the ulnar, which was perhaps a little diminished in volume at the bend of the elbow.

Histological Examination.—After hardening in Müller's fluid the peripheral nerves, the brachial plexus, the spinal marrow and the cervical roots were examined. Staining with carmine and with Weigert-Pal.

Ulnar Nerve.—The ulnar was somewhat diminished in size as compared with a normal ulnar. In transverse sections stained by the preceding methods it was impossible to demonstrate thickening either of the perifascicular tissue or of the circumfascicular sheath. No evident lesions of the vessels which were possibly a little thicker than normal, especially the arteries. The lesions were throughout almost exclusively of the parenchymatous order. Many nerve fibres had disappeared, in each bundle or they were reduced to the condition of empty sheaths; others were in process of atrophy. In the atrophied regions the intertubular connective tissue was plainly hyperplastic and very deeply stained by the carmine. These lesions existed throughout the length of the ulnar nerve, but the atrophy of the nerve fibres was more noticeable as the wrist was approached.

Median Nerve.—The median nerve, to the level of the wrist, presented changes analogous to those of the ulnar, but much slighter and diminishing equally from below upward. The increase in intertubular connective tissue was very plain.

Spinal Marrow.—If sections of the marrow are studied (sections stained with carmine and arranged in series), from the fifth cervical segment to the third dorsal segment, one discovers certain changes which are quite plain in the right anterior horn. At the level of the fifth cervical segment the difference in appearance between the two anterior horns is not very marked. The right anterior horn seems nevertheless a little smaller, a little flattened from before backward. Its cells are not so ample as upon the left side, particularly in the antero-lateral superior tract and in the internal group of the postero-lateral tract. In the sixth cervical segment there is a shrinking en masse of the right anterior horn which is much less thickened in its external portion than the left anterior horn. The antero-lateral superior tract contains nothing but some shrunken, deformed cells. The postero-lateral tract contains some cells which are badly stained with carmine. Between these two tracts poor in cells, there is found the antero-lateral inferior tract with fifteen well stained cells and some very distinct prolongations. Seventh cervical segment.—Here the antero-lateral and postero-lateral angles of the right anterior horn are less thickened than in the left and the corresponding tracts are less rich in cells. It is in the antero-lateral inferior tract and the peripheral part of the postero-lateral tract that the cells are the most shrunken and deformed. The basement substance stains more intensely with the carmine. In the eighth cervical segment the antero-lateral inferior and postero-lateral tracts contain only some shrunken cells. In the post-postero-lateral tract on the contrary there may be counted six or seven well developed cells. In the first dorsal segment on the normal side we find in the external angle of the anterior horn the well developed post-postero-lateral tract subdivided into three groups. On the right side no division into groups can be recognized, although we find some vestiges of deformed and globular cells. In the second dorsal segment the changes are almost imperceptible; the left anterior horn seems to be practically normal.

In the preparations stained by the method of Weigert Pal and corresponding to the preceding segments, it is equally possible to demonstrate a diminution in the size of the anterior horn on the right side. There is nothing noticeable in the white fibres. The anterior and posterior roots of the segments enumerated above do not present any plain lesions.

The case which we have just reported was a very plain one of idiopathic neuritis of the brachial plexus and was presented as such by our preceptor, Prof. Dejerine, in one of his clinics at Salpetriere. The autopsy has confirmed the diagnosis made during life. We were evidently dealing with a case of idiopathic neuritis since the pathologico-anatomical examination has demonstrated the absence of any cause of compression of the brachial plexus from its spinal origin to its peripheral terminations. This neuritis began, just as the sequence of symptoms showed, in the ulnar nerve; then the median was attacked in its turn but with less intensity; then finally the radial nerve. Very painful on pressure throughout its extent, collateral as well as terminal branches, the plexus was changed, especially in its ulnar and median distribution, just as the analysis of clinical symptoms showed it. The distribution of the motor and sensory trouble was distinctively peripheral and the great question during life was whether the neuritis was one affecting the roots of this plexus.

The lesions demonstrated in the ulnar and in the median, decreasing from below upward, were those of a slowly progressing parenchymatous neuritis with secondary interstitial hyperplasia. But there were also some medullary lesions, the pathogenesis of which makes an interesting study. These lesions were in the right anterior horn which was shrunken from the fifth cervical to the first dorsal inclusively, that is to say in the region giving origin to the brachial plexus. They involved all the nuclear groups of the lateral cellular column, consisting in the withering or more or less complete destruction of certain cells and probably following the lesions of the peripheral nerves. At the level of the first dorsal pair it was particularly the post-postero-lateral tract which was changed; at the level of the eighth cervical pair the lesions spared the

post-postero-lateral tract and affected particularly the postero-lateral tract; in the subjacent segments the postero-lateral tract and the inferior part of the antero-lateral inferior and superior tracts were especially affected. As to the etiology of this neuritis we know nothing definitely. It was without doubt of toxic or infectious origin, since the compression theory could not be confirmed, but it is impossible to decide what infection or intoxication was concerned; however, we believe syphilis can be eliminated. In closing we wish to call attention to the great duration of the affection which had been developing for fourteen years when the patient died.

General Medicine.

LE ROY CRUMMER, M. D., Omaha, Neb., Department Editor.

OVARIAN CASTRATION IN CANCER OF THE BREAST.—Dumont refers to four cases in France in which a mammary cancer subsided after removal of the ovaries. He also cites a large number published in England in which the cancer seemed to be favorably influenced by the castration. On the other hand, no result was apparent in a still larger proportion, and none of the patients was really cured.—Journal A. M. A.

RESULTS WITH MARMOREK'S SERUM IN MONTREAL.—Some time ago Dr. Marmorek's serum was given a trial in the Notre Dame Hospital, Montreal, Canada, on one surgical case and on one of tuberculosis of the lungs. The results in the first case were nil, there being noticed neither good nor bad effects. In the lung case the results were bad; the patient received in all nine injections. The sputa were weighed every day during the injections and showed a daily increase up to two ounces on the ninth day. At the beginning of the treatment the patient weighed 118 pounds. After the ninth injection there was a loss of three pounds, and the cough increased and was more harassing. The treatment was then discontinued at the patient's own request.

TRANSIENT, RELATIVE AORTIC INSUFFICIENCY.—Popoff has observed a number of cases of insufficiency of the aortic valves accompanied by weak and accelerated heart action with a tendency to aneurismatic dilatation of the aorta, in which the symptoms subsided and even entirely disappeared as soon as the heart action was regulated and the dilatation of the aorta diminished. In the St. Petersb. Med. Woch., XXVII, 45-7, he says the insufficiency may be of the valves or of the ostium, and may be transient or chronic, the former the precursor of the latter unless cured. It is extremely important to be able to differentiate the transient form and institute proper treatment. The inconstancy and changeability of the sounds must not mislead the clinician suggesting a pericarditis or other affection. Treatment must be directed to the underlying arteriosclerosis and the cure of the tendency to aneurismatic dilatation, as also of the conditions which have entailed extra work on the heart, bronchial affections causing severe coughing, etc., gastrointestinal autointoxication, constipation, leading to upward pressure of the diaphragm and efforts in defecation, and all factors that bring over-fatigue of mind or body, or cause disturbances and weakening of the heart action, congestion in the aorta, etc.

ON THE DIFFERENCE BETWEEN THE HUMAN AND BOVINE BACILLUS.—This much agitated question has received a genuine contribution in a very conservative and level-headed article by Lignieres, of Buenos Ayres, reprinted in the Centralblatt für Bacteriologie, xxxiv, 427. As the result of extended investigations he confirms the fact alleged by Koch, that the human tubercle bacillus practically never causes a progressive infection in cattle, although the same germ is deadly for rabbits and guinea-pigs. Experiments in the inverse order from cattle to man are of course out of the question, and while a number of accidents have shown that the bovine bacillus is capable of causing a local lesion in man, unqualified proof that it can cause general tuberculosis has not been forthcoming. Lignieres has therefore paid especial attention to the characteristics of the bacilli found in the tuberculous mesenteric glands of children who have been reared on cow's milk. The occurrence of this form of tuberculosis has generally been regarded as our most positive proof of the danger of unsterilized cow's milk. In six cases of this kind Lignieres has found in five that the infecting bacillus was of the human type, that is, was incapable of causing bovine tuberculosis, but in one case a bacillus was found of the bovine type. Lignieres' conclusion is that while the two varieties of the bacillus are distinct and probably not capable of being changed the one into the other in any reasonable length of time, it by no means follows that the bovine germ may not be dangerous to human beings, and he urges that there be no relaxation in the efforts to stamp out bovine tuberculosis, both because it may exceptionally be dangerous to man and because of the economic losses which it produces in cattle.—GIFFORD.

THRUSH.—In the treatment of thrush, where there are simply white, isolated, slightly elevated, firmly adherent dots or macules, Dr. E. Graetzer, in Post Grad., recommends repeated cleansing of the mouth with water, especially after meals. Mechanical rubbing with the finger wrapped in fine linen or absorbent cotton—whereby slight bleeding need cause no alarm—will usually suffice. In the confluent form, where the whole buccal mucous membrane down to the pharynx is dark red, dry and covered with numerous white patches or even where large white membrane covers the surface, tonics are indicated, as the patients are usually exhausted or atrophic. The underlying cause, such as diarrhea, must be treated. Locally the mouth must be washed with an alkaline solution, such as sodium borate or a solution of benzoate of sodium, 40 per cent. strength; or salt water, half a teaspoonful of salt to a glass of water. Some authors use patassium permanganate, 1 to 100; or sodium borate in glycerin, 1 to 4. "Sucking bags," containing boracic acid, are of value. A pledget of sterilized cotton, well covered

with finely powdered boracic acid mixed with saccharin, is wrapped in a small sterilized rag of silk or fine gauze and given to the child to suck and chew on. These bags should be renewed once in twenty-four hours. In severe cases, the author advocates an application of silver nitrate, 1 to 3 per cent., once daily.

As prophylactic treatment, thorough cleanliness of the nipples and breasts must be observed. The breast nipples should be washed with an alkaline solution before and after nursing. The rooms must be well ventilated, general health improved and any gastrointestinal disturbances corrected. In thrush involving the esophagus and stomach the internal administration of resorcin (0.5 to 1.00 to 100) is of benefit.

Holt recommends solutions of sodium borate or sodium bicarbonate, ten grains to the ounce, and applied four times daily, observing care not to injure the epithelium. Applications containing honey or syrup must especially be avoided where the disease is produced by irritation of the rubber nipple, feeding by gavage is resorted to for two or three days, under which method improvement takes place more rapidly. —Journal A. M. A.

On Dreyer's Sensitizing Method in Light-Therapeutics.—Although our acquaintance with the influence of light on living protoplasm, as shown by sunburns, is immemorial, our knowledge of the subject underwent little change until Widmark, Downes and Blunt, Finsen and his helpers, showed that the reaction of animal tissues and the death of bacteria and infusoria is produced chiefly by the blue, violet and ultra-violet rays; in other words that the efficiency of the rays increased directly with their refrangibility. Acting on this principle, Barig then devised a lamp which produced an unusually high proportion of ultra-violet rays, but, strange as it seemed, this lamp proved to be almost worthless for therapeutic purposes; and this in turn was explained by the experiments of Busk and others which showed that unfortunately the penetrating power of light rays proceeded in an inverse ratio to the bactericidal power; the red and ultra-red rays having the greatest penetration and the ultra-violet rays the least. This led Dreyer, of Copenhagen, to the brilliant idea of sensitizing tissues and microbes, as photographic plates are sensitized, to the action of the deeply penetrating but slightly active rays, and his application of the thought has produced most important results. For instance, infusoria, which in a drop of water continued their movements unchanged for at least several minutes after exposure to the arc light, were killed almost instantly when exposed to the same light in a solution of erythrosin 1 to 4,000. This effect cannot be due to a toxic action of the erythrosin, since in the dark the same infusoria live for fourteen days. Nor does it depend upon the formation of a toxin from the erythrosin under the influence of the light, since a solution treated with the light has no more effect on infusoria in the dark than a fresh solution. In testing the method on bacteria it was found that germs which were alive after eleven hours' exposure were killed in twenty minutes by the same light after being sensitized. The effect on the tissues was plainly shown by covering a sensitized rabbit's ear with the other unsensitized ear during the light treatment. The upper ear showed no reaction, while the covered one reacted sharply. The foregoing is abstracted from a review of the subject by Neisser (Deutsche Med. Woch., 8, 1904), where Halmerstaedt also gives results obtained in Neisser's clinic which entirely confirm Dreyer's conclusions. Twenty-five patients were treated with the Finsen lamp after sensitizing the tissues by the injection of solutions of erythrosin from 1 per cent. to 1 to 1000 in an 0.85 per cent. solution of salt. It was found that in this way a much more powerful reaction was produced by a twenty-minute exposure than by a seventy-minute exposure with unsensitized tissues. Another advantage is that, while in the ordinary Finsen method quartz condensers must be used to allow the passage of the highly refrangible rays and consequently only small areas can be treated at one time, ordinary glass condensers can be used and much larger areas treated by Dreyer's method. But perhaps the greatest of all the advantages of sensitization is the possibility which it offers of limiting the action of the light to the deeper tissues. Thus, if the solution be injected deeply, the exposure can be regulated so as to produce a powerful deep effect, with almost no effect on the surface of the skin; and as the same principle can probably be applied in using the Roentgen and radium rays, it promises to be of immense value in increasing the safety with which these agents can be used.—Gifford.

Surgery.

B. B. Davis, A. B., M. D., Omaha, Neb., Department Editor.

A Case of Prenatal Appendicitis.—W. Fred Jackson, of Brockville, Ont., reports (American Jour. of Med. Sci., April, 1904) a case of an infant dying at the age of forty hours of acute poisoning. The post-mortem showed the appendix much elongated and congested, lying upon the cecum and bound down upon it with numerous firm adhesions. Jackson concludes that the inflammatory condition "must have occurred previous to the child's birth."—B. B. Davis, Omaha.

Acute Suppurative Thyroiditis.—Henry Roth (American Jour. of Med. Sci. Jan., 1904) reports a fatal case of acute suppurative thyroiditis in an Italian laborer, aged 40 years, who died four days after the trouble began. It was a streptococcus infection, but the source of the infection was not discovered. The disease is so rare that it was deemed important to report it. Roth agrees with Ransohoff that the reason of the usual immunity of the thyroid to pyogenic infection is that there is no excretory duct and that the gland is enclosed in a firm capsule. It is considered usually to be a sequel of the infectious diseases, especially typhoid fever. It terminates in resolution, suppuration or necrosis. As regards treatment early incision and drainage are imperative, but the profound sepsis usually present make it a serious and dangerous disease.—B. B. Davis, Omaha.

Nervous and Mental Diseases.

J. M. AIKIN, M. D., Omaha, Neb., Department Editor.

PATHOGENESIS AND PROGNOSIS OF TABES.—(M. Faure, Journ. de med. de Bordeaux, Aug. 16, 1903.)—In the opinion of this author syphilis does not play the important part usually assigned to it in the causation of tabes. Other infections and intoxications or simply physical or moral shock, mental strain, or privation must be considered as etiological factors in the disease. Though the majority of tabetics have suffered syphilitic infection, the symptoms of tabes first appear in many such subjects after other infections and intoxications. It may be said that in 60 per cent. of the cases, no matter what the treatment, tabes is arrested in the early stages; or its evolution is so slow that its effect upon the duration of life is very slight. In but 30 per cent. does the disease progress so rapidly as to justify the grave prognosis formerly given in this condition. Five per cent. of the cases are clinically cured, while a like number progress rapidly and fatally, and their course is marked by fever and symptoms of infection. This febrile form of tabes has not hitherto been described, and runs a short course of a few months to two years. —(Jelliffe, Journal Nervous and Mental Diseases, March, 1904.)—J. M. AIKIN, Omaha.

RELATION OF TABES TO GENERAL PARESIS.—The question of the relation of tabes and progressive paralysis arose at the time when Duchenne of Boulogne devised the term progressive locomotor ataxia (1858-59). The discussion has continued to the present day, and when Raymond communicated to the society his views on the unity of the two diseases in 1892 neurologists became divided into two groups, those that held that the two diseases were phases of the same condition with the common etiology of syphilis, and those that believed that the two were entirely different. Toward the solution of this question the author gives an account of a case with autopsy in which the symptoms of the two conditions, together with definite histological changes common to both, were found. Woman, aged 58. Three years ago she began to see double and to show the presence of the Romburg sign. The intelligence began to show evidences of a progressive decline. The mental condition and the absence of all the deep reflexes and the ocular symptoms made the diagnosis of tabes and progressive paralysis certain. The post-mortem showed the meninges injected and adherent to the cortex, especially in the frontal lobes. The microscopical examination showed a diminution of the cells in the cortex of the frontal lobes. The infiltration of the pia mater is especially marked. The same infiltration is observed in the cord, together with the typical areas of degeneration in the white matter of the cord. The author, in discussing the interpretation of these findings, calls particular attention to the presence of plasma cells These have been regarded as the evidence of chronic syphilitic process. Attention is also called to the recent theory, advanced by Marie and Guillain, that the initial lesion of tabes is nothing else than a syphilitic process of the posterior lymphatic system of the cord. —(S. Schwab, Journal Nervous and Mental Diseases, March, 1904.)—J. M. AIKIN, Omaha.

THE PROGNOSIS OF TABES.—(Joseph Collins, Medical News, Aug. 29, 1903.)—The symptoms of tabes are classified in (1) the preataxic stage; (2) the ataxic stage; (3) the profoundly inco-ordinate and hypotonic stage, often spoken of as the paralytic stage. The duration of these stages varies. In 140 cases of the author three years and five months elapsed between the first symptom of the disease and the appearance of the ataxia, but the period of five years is more probably correct.

The factors that influence the prognosis are (1) the clinical type of the disease; (2) what may be called the anatomical type of the disease, i. e., whether lumbar or cervical; (3) sex and age; (4) the individual, his occupation and the treatment. The prognosis is most favorable in the cases of a motor type, especially since the introduction of the Fraenkel system of exercises, and orthopedic apparatus. It is unfavorable when severe disturbance of the urogenital system and trophic symptoms are early and conspicuous manifestations. The prognosis is worse in cases of sudden onset, and better in cases of slow and insidious onset. The presence of recent syphilis is a serious factor due to the changes in the blood-vessels. Cervical and cervicobulbar tabes has a serious prognosis, also early involvement of the nerve supply of the larynx. The course of the disease is more rapid in women, in young tabetics, under thirty-five years of age, and in those whose occupation necessitates standing or fatiguing use of the legs. The pronounced cases common twenty-five years ago are seldom seen to-day in private practice, due probably to improved methods of treatment.—(W. B. Noyes, Journal Nervous and Mental Diseases, March, 1904.)—J. M. AIKIN, Omaha.

THE HISTOLOGY OF GENERAL PARESIS.—Weighing the opinions, on the one side of Klippel, who thinks general paresis primarily a disease of the nerve cells, and on the other of Anglade, Mahaim, and others, who think the vascular and neuroglia changes the primary lesion, the author concludes that the evidence is in favor of the first view. The perivascular cell proliferation and the neuroglia changes he regards as secondary. He finds strong support for this conclusion, in the studies of Van Gehucten on anterior poliomyelitis, in the capsular proliferation found by Van Gehucten and Nelis in rabies, by Crocq in diphtheria, and by De Buck and De Mor after ligation of the abdominal aorta, and also in the researches of the last-named authors on the role of the nuclei of the sarcolemma in muscular regression. In each of these cases the proliferated (or exuded) round cells seem to play a phagocytic part. Reasoning by analogy he thinks that in general paresis the cells being primarily attacked by some at present unknown toxic agent the same sort of process goes on, the innervation of the vessels is disturbed, and there is consequently diapedesis of leucocytes, which in turn may

act as phagocytes, the neuroglia proliferation being a still later change.

Voice in Paresis.—In general paresis the voice may undergo alterations in both pitch and timbre, in addition to the atactic disturbances of the muscles of phonation so characteristic of the disease. The author made a study of the first-mentioned changes in fifty-five male paretics during the two earlier stages of the disease, making in all 1,596 examination. He found the voice nearly as often abnormal as normal. Lowering of pitch is nearly nine times as frequent as its elevation. Raised pitch when present was nearly always excessive, while lowered pitch occurred in three grades, the medium grade being twice as frequent as the two others combined. The voice is more often found altered in the first stage than in the second stage of the disease. During remissions he found the highest percentage of abnormality, next came the depressive form, while the dement form showed the least abnormality. Raised pitch occurred only in the depressive form and during remission, while lowered pitch was found in all forms. Only in syphilitic cases was the percentage of abnormality greater than that of normality. Raise of pitch was found only in the syphilities and alcoholics, who also furnished the greatest number of cases of lowered pitch, the combination of these two factors giving the maximum percentage of excessive lowering. Lowered pitch was the more marked the older the subjects, raised pitch being only found in the precocious forms of general paresis. Abnormality was more common in the warm season. There was no relation between the disturbance of motility and that of voice. Raise of pitch and excessive lowering of pitch were only found when there was loss of genital sense. The author cannot find that the alteration of voice depends ordinarily upon the cries uttered by the patient, though this may well be a contributing cause. In only one-third of his cases was the voice constantly normal. In one case the pitch was first raised, then normal, and later lowered. The changes are more severe and more fixed in the second stage than in the first. In both stages the evolution of the voice troubles may be irregular and capricious.—(Allen, Trenton, Journal Nervous and Mental Diseases, March, 1904.)—J. M. Aikin, Omaha.

Gynecology.

W. O. Henry, M. D., Omaha, Neb., Department Editor.

From recent numbers of the Journal of the American Medical Association I clip the following interesting and instructive articles:

"*Abnormal Pregnancy.*—In the case reported by Cushing the sac containing the child was above the uterus and imposed on it. The diagnosis was a full-term pregnancy in a rudimentary, closed horn of the double uterus. A careful examination of the parts before and after removal of the sac demonstrated no connection between the cavity of the sac and the maternal passages, except through the open end of the Fallopian tube on the left side. The explanation given is that the spermatozoa passed into the peritoneal cavity through the right Fallopian tube and migrated into the left, impregnating the ovum en route. Only the right Fallopian tube was connected with the cavity of the uterus connected with the external passages."

"*Conservation in Pelvic Infection.*—Polak believes in early intervention in pelvic infection; there is a time, could we but recognize it, when intervention will prevent further invasion. From his experience with 79 cases, several of which he reports, he thinks that the best chance of saving life and minimizing the sequelæ is obtained by proper surgery, and he has found Pryor's iodin treatment of great value in these cases. Of the 70 patients operated on, 58 have been kept under observation from six months to three years, and 5 reoperated on; 52 have had no further surgical treatment, and 39 of this number are practically recovered, having no pain or gross lesion requiring any attention. None have had subsequent pelvic peritonitis. Six complained of severe dysmenorrhea, but are free from pain between periods. Four in which the lesions were of gonococcal origin, while having no pain, complain of menorrhagia and have large, thickened and more or less fixed uteri, while 3 women have appreciable thickening in one tube. Of the 9 gonorrheal cases refusing operation during the acute attack, all have come under observation in one or more attacks of pelvic peritonitis, and 2 have well-defined pus tubes."

"*The Differential Diagnosis of Syphilis and Cancer of the Vulva.*—Dr. Barton Cooke Hirst, Philadelphia, reported the case of a woman, 28 years of age, single, who had never been pregnant. She denied ever having led an immoral life, and the possibility of venereal infection. Ten years ago she was operated on in the Pennsylvania Hospital for hemorrhoids and fissure in ano. The wound of the operation did not heal properly. More than a year ago the patient noticed an ulcerated condition of the vulva, and a short time afterward incontinence of feces, followed soon by incontinence of urine. For two years past there had been amenorrhea. On a specular and digital examination, a fistula between the fossa navicularis and the rectum was discovered. The whole urethra was gone; there were three little tubercles at the neck of the bladder, these being all that was left of it. The vagina above the neck of the bladder was perfectly healthy. The cervix was normal except that it was atrophic, as was the whole uterus. The case, at first sight, looked like an inoperable epithelioma of the vulva, and was pronounced to be so by one of the most experienced dermatologists in Philadelphia. But there was none of that extensive infiltration and elevation of the skin surface around the edges of the ulceration, such as was seen in an example of extensive epithelioma of the vulva, considerably advanced, but not yet inoperable. Moreover, numerous pieces of tissue from different places in the ulcerated area showed nothing characteristic of cancer. There was everywhere the most extensive round-cell infiltration and necrosis of tissue. The microscopic study, as well as the macroscopic appearance suggested syphilis in the ulcerated gummatous form. Accordingly the patient was put on specific treatment in spite of her

negative history. The treatment was given up within a week, as the patient was severely ptyalized.

Lupus next suggested itself. On two separate occasions, under anesthesia, twelve or fifteen pieces of diseased tissue were removed for microscopic examination. No tubercles nor bacilli could be discovered anywhere. Inoculations in animals were negative. The urine contained no tubercle bacilli. The bladder itself was healthy. There was a response to the tuberculin test, but the woman had a patch of consolidation in the apex of one lung. Meanwhile the patient was given X-ray treatments every other day for eight to ten minutes. Within three weeks the external ulceration was healed. Two weeks later the rectovaginal fistula spontaneously closed under the continuance of the X-ray applications. Nothing remained of the original disease except the absence of the urethra and an elephantiasic condition of the labia majora. The former had been corrected by urethroplasty. He had not yet joined the new urethra to the opening in the bladder, so that the establishment of continence of urine was still doubtful, but he was quite hopeful of making the patient eventually entirely comfortable."

"Pregnancy and Crime.—Cumston discusses the effects of pregnancy on the mental and moral condition of females. He thinks the judgment and will power may be partially affected, but the sensory or moral disease is limited and only attacks isolated points. He concludes that where guilt is evident pregnancy can hardly be an excuse, but is quite permissible to invoke pregnancy as an attenuating factor in certain cases."

"Placenta Previa.—Schell thinks that in placenta previa, even in the worst cases, Cesarean section may offer the child his only chance. The total of infant mortality under other methods is estimated by various authorities as about 50 per cent. This sacrifice of infant life should be avoided. A hastily-performed version is more dangerous than the ordinary operation of Cesarean section to both mother and child. In many of these cases rapid extraction is essential for the safety of both, and it is often difficult, frequently causing the death of the child and perilous to the mother. If Cesarean section is done early, before there has been considerable hemorrhage in the early stages of labor, it can be a fairly elective operation, and as favorable to recovery as under any other circumstance. If there is considerable hemorrhage, rapid section offers the best hope of recovery. All delay except that necessary for the preparing of the abdomen for the incision is avoided, and the risk of hemorrhage attending operations on the placenta is also avoided."

"The Toxemia of Pregnancy.—Stone's principal topic is the hyperemesis of pregnancy which he attributes to a general toxemia. He classifies toxemia as mild and severe, and divides the latter into acute and subacute. The subacute includes those appearing in the early months, which after a duration of four to seven weeks terminate fatally or end in recovery; and a smaller proportion that also appear early but continue throughout pregnancy with intervals of improvement, though likely to develop very serious conditions and even to be fatal. Of the acute types there are: (1) cases of pernicious vomiting ending fatally in two weeks; (2) cases which, with or without previous manifestations of a mild character, suddenly become completely prostrated and die within a few hours; and (3) cases ordinarily described as eclampsia. He points to the difficulty of recognizing certain urinary changes until more improved methods of technic are generally available. The treatment on the hysterical theory is analogous to treatment of cancer by Eddyism. The drugs that are useful are few, such as calomel, salol, etc., and the absolute abstinence from either food or drink until improvement has commenced. Nutritive enemata, as well as stomach lavage, may sometimes be employed. The chief reliance, however, should be placed on injections of hot normal saline solution into the rectum at frequent intervals, according to the Behm method; it may be necessary to add half an ounce of whisky to some of the injections. In some cases it may even be advisable to employ continuous irrigation for half an hour every three or four hours, using the double current rectal tube or two separate tubes. Occasionally hypodermoclysis may have good effect. He would say that pregnancy ought to be interrupted before the appearance of black vomit or rise in the pulse or urinary changes. In the acute or fulminating type he thinks the matter of intervention is open to the most serious doubt."—W. O. HENRY, Omaha.

Dermatology and Genito-Urinary Diseases.

E. J. ANGLE, A. M., M. D., Lincoln, Neb., Department Editor.

BURNS TREATED WITH GLYCERINE OF TANNIN.—Capullano (Gazz. degli Osped., Sept. 13, 1903), speaks highly of the above method of treatment which he and his colleagues have practiced for some time. It is applicable to burns of all degrees. The author uses a 50 per cent. (or less) solution, using the purest glycerine he can procure. If the burn is of the second degree he punctures the bullæ, then applies the glycerine of tannin and covers with gauze and cotton-wool. The application is repeated several times a day, without removing the gauze, which is allowed to remain in situ until it separates itself. By this simple treatment the author says he gets far better results than with any other of the numerous remedies in vogue. The tannin is slightly antiseptic, and by coagulating the albumin forms a sort of protective varnish over the tissues, whilst the glycerine also exercises a certain antiseptic power.—Medical Review of Reviews, Nov., 1903.

DRUG ERUPTIONS.—Pernet (Brit. Med. Jour., May 16, 1903) divides drug eruptions into nine classes: (1.) Erythematous, urticarial, papular and desquamating rashes are produced by belladonna, chrysarobin, mercury, arsenic, iodoform, copaiba, quinine, salacin, and borax. (2.) Vesicular and bullous eruptions are produced by the majority of the drugs already named, particularly by iodoform, salipyrine, arsenic, potassium iodide and antipyrine. (3.) Pustular eruptions are produced by bromides and the iodides. (4.) Furuncles

may be produced by arsenic, the bromides and quinine. Abscesses may be due to self-administered hypodermic injections of morphine. (5.) Purpuric rashes may be due to antipyrine, arsenic, iodoform when given internally, quinine and sulphonal. (6.) Gangrene sometimes follows the use of arsenic, the iodides, quinine and orthoform when applied locally. Purpura has followed the use of sodium salicylate. (7.) Pigmentation may follow the use of arsenic, antipyrine and silver nitrate. (8.) Keratosis and hyperkeratosis have been known to result from the use of arsenic. (9.) Tumor-like lesions are especially prone to occur in the bromide eruptions.—E. J. Angle, Lincoln.

Therapeutic Experiments With Fluorescent Substances.—(H. v. Tappeiner and Jesionek, British Journal of Dermatology, Jan., 1904.) In 1900, in this journal, v. Tappeiner drew attention to the power possessed by fluorescent substances in the presence of light to destroy infusoria. No action took place if the rays producing the fluorescence were cut off. Further experiments showed that these substances were able to destroy enzymes and toxins. It was found that acridin, acridin derivatives, eosin, chinolin red, harmalin, and quinine acted on the cell. Aesculin alone was useless. Eosin, fluorescein (uranin), and magdala red acted strongly on toxins; the rest weakly or not at all. Eosin, chinolin red, and magdala red acted on papain, diastase, and invertin. The next step was to apply these results to dermatological practice, and this was done in the clinic of Professor Posselt. Eosin, as a 5 per cent. watery solution, was chosen as the substance to be experimented with and the sunlight, when not available, was replaced by exposure to an arc light of twenty-five amperes. In the intervals the part was protected by a boracic fomentation or by a zinc plaster. The authors recorded the results obtained in the treatment of carcinomatous, tuberculous, and syphilitic diseases of the skin. In a case of carcinoma of the face in a woman aged 70, although the cure was not complete, the authors were disposed to think that it was only a question of time before the last traces disappear. A case of rodent ulcer on the forehead of a man aged 60, of eighteen years' duration, had improved so rapidly that the authors anticipated a complete cure in about two or three weeks, or after eight to ten weeks of treatment. A third case of inoperable carcinoma of the nose was greatly improved after four weeks' treatment. They reported excellent results in a case of tuberculous disease of the testicle with secondary ulceration of the scrotum. The tubercle bacilli disappeared from the secretion. Five lupus cases were treated. The treatment seemed to shell out the lupoid granulations in an elective fashion. Where the epidermis was thick or resistant no effect was produced. A ture.—E. J. Angle, Lincoln.

Ulcus Molle (Chancroid) Bacillus, Pure Culture of.—(Fischer, Abstract from the Journal of Cutaneous Diseases, Jan., 1904.) In a critical review of our knowledge concerning Ducrey's bacillus, the author considers that while Istomanoff and Akspianz (1897) perhaps were the first to obtain cultures in a medium made by adding macerated human skin (previously dried and powdered) to agar and from these cultures by inoculation on human subjects obtained typical chancroids, yet Langlet deserves precedence. Langlet used a medium containing human skin which had been digested with pepsin and, from these pure cultures, he produced typical soft chancres in the human subject from which the same bacillus could be again obtained in pure culture. Bezancon, Griffon, and Le Sourd simplified the technique in using a mixture of rabbit's blood and bouillon-pepton-agar. The author follows the method recommended by Langlet to obtain a "uniseptic" ulcer by vaccination from the suspected lesion on the patient's abdomen. This transplanted lesion is protected by an aseptic dressing and, to get rid of the almost constantly present Zeissl's pseudo-diphtheria bacillus, the new lesion which develops in a couple of days is painted with tincture of iodine. This is again covered with an aseptic dressing for two days and then the bottom of the ulcer is scraped and examined microscopically for the Ducrey bacillus, which, if found in abundance and fairly pure, is inoculated into his media, which is prepared in the following manner:

Rabbit's blood is drawn directly from the ventricle into a sterile syringe with all the necessary antiseptic precautions. This blood is partly distributed in sterile tubes and a part is mixed with liquefied and cooled pepton-bouillon-agar, well shaken and allowed to solidify in slants. The blood-pepton-bouillon-agar forms a shiny, red medium, which is allowed to stand forty-eight hours to see if it remains sterile, and can be used up to two weeks, at which time growths cannot be obtained. The suspected pus from the inoculated ulcer is richly smeared on the surface and the condensation water is allowed to moisten the surface.

In two days the cultures are visible as round, shiny, elevated colonies, which are very adherent to the media and in transplanting must be taken up with the adherent agar. As the bacillus becomes accustomed to the media the growth is more rapid. "Klatsch" preparations of the young colonies show slender bacilli in parallel chains which resemble the arrangement of hair on the human head when looked at from above. Polymorphic changes begin in twenty-four hours and then numerous "dumb-bell' diplococcus and point-ended forms may be seen. The bacilli lose their vitality on solid media in from eight to ten days, in the condensation water virulency is longer maintained. The author considers the ordinary laboratory animals as immune to inoculation. By autoinoculation on the left forearm the author succeeded in producing a typical chancroid from a culture in the condensation water of the fifteenth generation (one and a half months old). In two days there developed a "punched-out" ulcer surrounded by an intensely brown-red zone, the size of a "mark." This result was demonstrated before the Berlin Dermatological Society. Ducrey bacilli were obtained from smears and in cultures in rabbit's blood. In a foot-note the author refers to the very interesting experiments of Himmel, who succeeded in depriving guinea-pigs of their immunity to the chancroid bacillus

by previously injecting into the abdominal cavity a few cubic centimeters of a watery solution of lactic acid or of an anticomplement (antialexian). A subsequent injection of a culture of the chancroid bacilli in such prepared animals quickly caused death and from the blood of such animals pure cultures were obtained. By several passages of the bacilli in this manner through guinea-pigs the virulency was so augmented that an unvaccinated guinea-pig would die in twelve to twenty hours after injection of bacilli. Nicolle and Thomasczewski have succeeded in producing typical sofe chancres in monkeys.—E. J. ANGLE, Lincoln.

Society Proceedings.

THE seventh annual meeting of the American Gastro-Enterological Association will be held at Haddon Hall, Atlantic City, N. J., June 6 and 7, 1904. The annual dinner will take place on the evening of June 6.

THE second annual meeting of the Dawes County Medical Society was held in Chadron, Neb., March 31. Besides other interesting and important business, officers were elected for the ensuing year as follows: President, Dr. Anna Cross, Crawford; vice-president, Dr. J. E. Hartwell, Crawford; secretary-treasurer, Dr. E. A. Wier, Chadron. The county board of health reported the recent arrest of a man who persisted in violating the quarantine laws. He pleaded guilty and received the minimum fine of $15 and costs, amounting to $21.50.

E. A. WIER, Sec.-Treas.

PAWNEE COUNTY MEDICAL SOCIETY.—An interesting experiment in medical society work was attempted and carried to a successful conclusion by the Pawnee County Medical Society at their last regular meeting held in Lewiston, Neb., March 7. The program, as was previously published, provided for an "open meeting," one to which the public generally were invited. At 2 p. m. the society held a business meeting in the office of Dr. A. G. Emerson, at which every member of the society but two were present. At 3 o'clock the society adjourned to the public hall of Lewiston which had been arranged for the public meeting. In addition to the members of the society present, the profession from Virginia, Crab Orchard and other neighboring towns was represented, while the large attendance on the part of the public betokened their interest in the papers to be discussed.

Dr. Emerson, in a brief but pleasing address, introduced the society. Rev. T. Collinson, of Lewiston, presented an excellent paper upon "The Public and the Doctor," in which he compared the relations to the public of the three great professions, law, medicine, and the ministry. He paid a tribute to the honest, faithful family doctor and depicted the lasting friendships that were sometimes developed as the result of his battles with disease and death, while too often his reward was but the consciousness of duty well done.

Dr. Wilson, president of the society, followed in an address at some length upon "The Doctor and the Public," which was well received. Two papers upon the program which were deserving of special mention, on account of their keen interest to the audience and their great value to the general public because of their clear, concise information, as well as their value to the profession by the imparting of this information, thus making the doctor's work easier and more successful, were the papers by Dr. Anderson on "The Diet of the Sick and the Care of the Sick-Room," and Dr. Bullard on "What Must and Must Not Be Done in Surgical Maternity Cases." While either subject is too large to be exhausted in the limits of a single paper, it was very evident that so far as the audience was concerned the papers were very timely and many wholesome truths were pressed home to the undoubted advantage of both patients and doctors.

The meeting closed with a paper by Dr. McCrea upon "The Doctor's Bill: Is He Worthy of His Hire?" This was not discussed as thoroughly as it deserved, on account of the lateness of the hour. A banquet was then tendered the society and a few of its special guests by Dr. Emerson. It seemed to be the opinion of all that the meeting was a most profitable one. She credit for its success belongs largely to Dr. Emerson. It was he who first suggested the idea of such a meeting. His efforts contributed largely to the shaping and carrying out of the excellent program and the society has him alone to thank for their cordial reception and most pleasing and hearty entertainment at Lewiston. The last act of the society was a unanimous vote of thanks to the doctor for his efforts.

F. W. PLEHN, Secretary.

STATE MEDICAL ASSOCIATION NOTES.

The association will meet at 2 o'clock p. m. in the Board of Education rooms (top floor) city hall, Eighteenth and Farnam streets, Omaha.

The House of Delegates will meet in city hall at 11 o'clock a. m. Tuesday.

Board of Councilors will meet at 11:30 Tuesday morning in city hall.

Exhibits will be in Paxton Hotel.

"Headquarters" at the Paxton.

"Smoker" at the Paxton Hotel Wednesday evening.

Tuesday night will be taken up entirely by the address of welcome and response and the president's address.

All railroads in the state offer the following rates: Tickets will be sold to Lincoln and return on the certificate plan rate (one and one-third fare). Buy your ticket, paying full fare, taking the agent's receipt; this, when presented at the state meeting for proper endorsement on Wednesday, together with a fee of twenty-five cents, will entitle you to one-third fare return ticket.

To the secretaries of county societies: The constitution and by-laws provide that the annual report should be sent the secretary of the State Medical Association by April 1. One-half of the county societies as yet have not sent in their reports.

Programs will be mailed to the members about April 20.

The program is a good one.

A VALUABLE REMEDY

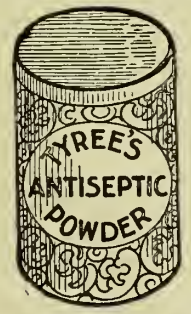
in conditions attended with
malnutrition, general debility and
nervous exhaustion is

GRAY'S Glycerine TONIC Comp.

Its reputation is based upon
twenty years' successes in cases
unbenefited by other treatment.

THE PURDUE FREDERICK COMPANY,
No. 15 Murray Street, New York

CONVENIENT EFFICIENT ECONOMIC



In searching for an antiseptic of greatest possible power and utility, yet without the limitations of most recognized antiseptics

Tyree's Antiseptic Powder

was prepared about ten years ago. In convenience of form, range of uses, general efficacy, non-irritating quality, ease of application and economy it has been proven without an equal.

Throughout the United States and some of the foreign countries this Powder has been

Introduced By Intrinsic Merit Alone

It is not a secret nostrum, but a strictly ethical compound purveyed through ethical channels.

FOR TRIAL SAMPLE AND LITERATURE, ADDRESS

Packages of ¼ lb., sufficient for 8 gallons of solution, 80c. each; from prescription Druggists or direct, carriage prepaid, on receipt of price.

J. S. TYREE, Chemist,
Washington, D. C.

NON-IRRITATING NON-TOXIC COLORLESS

Tissue Waste

In morbid conditions following La Grippe, Typhoid, Pneumonia, Malaria, operative treatment and other conditions marked by tissue waste; secondary anemia and persistent decline, Colden's Liquid Beef Tonic has shown itself able to satisfy the demand for constructive metabolism. It creates an appetite for food which is taken with avidity and relish. It imparts strength and completeness to the digestive and nutritive processes. Be specific in ordering "Ext. carnis fl. Comp. (Colden)."

Colden's Liquid Beef Tonic

Literature mailed to physicians on request.

THE CHARLES N. CRITTENTON CO.
Sole Agents for the United States,
115-117 FULTON STREET, NEW YORK.

MONEY TO OXFORD.—A studentship in pathology in Oxford University, England, is to be established with $6,000 given by Mr. Philip H. Walker.

JEWISH HOSPITAL IMPROVEMENTS.—Plans are being drawn for a number of improvements to be added to the Jewish Hospital, Cincinnati, O. These consist of a nurses' home, a large power plant, which will supply the energy for heat and light to the hospital and its supplemental buildings, as well as for the Home of the Jewish Aged and Infirm situated near the hospital. The most important of the new buildings will be a children's hospital of large size. The cottage plan of building will be the one used. This work will all be done by private subscription, and already large sums have been donated by the wealthy residents of the city.

BILLS DRAFTED AND OFFERED.—Bills have been drafted for presentation to the Maryland legislature for the granting of a charter to the Washington County Hospital Association, Hagerstown, for an annual appropriation from the state of $6,000 to enable the county commissioners and mayor and council of Hagerstown to levy annually for certain sums for the support of the hospital. Appropriations are also asked from the state for the Baltimore Eye, Ear and Throat Hospital, $10,000 for the Hospital for Consumptives near Baltimore, instead of $2,000 annually as now, and the Franklin Square Hospital, Baltimore. A bill has also been offered prohibiting the use of wood alcohol in compounding flavoring extracts.

CONSUMPTION OF FAT IN THE TROPICS.—Effertz resides in southern Mexico, in one of the hottest regions on the globe. He was amazed to find that the natives craved as much, if not more, fat in their food than the Eskimo, and theorizes to explain this fact. The excessive perspiration cools off the lightly clad body to such an extent that the subjective sensation of chilliness surpasses that of the Eskimo in his furs. The body, therefore, craves fats to replace the calories thus lost. He remarks that many interesting facts are yet to be learned in the tropics—not in the towns, but in the country where observers are rare.—Journal A. M. A.

CAUTION!

Sander & Sons' EUCALYPTOL (Eucalypti Extract)

We received quite recently the following communication from Dr. W. H. Mayfield, Louisville, Ky. He says: "I have been using Eucalyptus, depending upon our drug stores, which have been furnishing me the commercial article, which is of uncertain strength, and disappoints."

To guard the high reputation our product has acquired all over the civilized globe, through the most scrupulous attention to all the details in the process of production, we repeat here once more and state again: **"That we are the sole manufacturers of Eucalyptus Essence who employ exclusively the leaves of the plant in gaining the article known as 'Sander & Sons' Eucalyptol' (Eucalypti Extract)."** In consequence it is impossible to obtain "Eucalyptol proper" (the essence of the leaves) from any other source, or the results the physician expects from any other manufacture. The application of Eucalyptol proper is so positive and distinct in results that no doubt must be entertained as to ultimate success. And if, nevertheless, disappointments be experienced, they rest with spurious articles supplied the physician in place of our product. This forms ample proof how imperative it is **"That the physician in prescribing specifies our product and insist upon receiving it."**

Our agents, Messrs. Meyer Bros. Drug Co., of St. Louis, Mo., have consented to fill, postage prepaid, orders for one original package (one ounce) on receipt of One Dollar. We beg to order from them. One test will at once convince and serve as safeguard. The difference is too striking and allows of no mistake.

Samples and literature of Sander & Sons' Eucalyptol (Eucalypti Extract) gratis, through Meyer Bros. Drug Co., St. Louis, Mo., Agents.

Sander & Sons, Bendigo, Australia

NOT FAILED IN A SINGLE CASE.

Dr. J. H. Powell, Fitzgerald, Ga., says: "I have used Satyria in my practice with good results; in fact, it has not failed in a single case where indicated."

IS THERE AN IDEAL APERIENT WATER?

Dr. J. W. Hyde says of Carabana that it is valuable on account of the small doses required and its quick results; and that he has no hesitation in endorsing it strongly and believes that when the medical profession know it better, it will gradually become the welcome substitute of all the ordinary saline laxatives which have been prescribed heretofore.

SANMETTO INCOMPARABLE IN INFLAMMATORY CONDITIONS OF THE URINARY TRACT.

I have used Sanmetto in the various inflammatory conditions of the urinary tract—especially in acute cystitis and prostatitis—with good results. Other preparations on the market that are said to be the same thing are not to be compared with Sanmetto.

H. E. PHARES, M. D.

Shelbyville, Ind.

GLYCO-THYMOLINE IN PHTHISIS AND TUBERCULAR INVASION OF THE SUBMAXILLARY AND CERVICAL GLANDS.

"It seems to have been thoroughly established that in most cases tubercular infection has been through the mouth and naso-pharynx. This being the case, a protection of these parts from invasion is of the first consequence. In a recent note on this subject, Professor Arnulphy, of Paris, says that, in addition to other methods to protect those persons—as physicians, relatives, nurses, etc.—who are compelled to come in contact with consumptive patients, the frequent daily use of Glyco-Thymoline as a mouth, throat and nasal wash will ensure a degree of immunity from infection that reduces the danger to a minimum. To those already suffering from the disease, Glyco-Thymoline has proved of great value as a means of keeping the mouth, nose and cervical glands in an aseptic condition with a marked alleviation of cough and irritation. The action of the solution of Glyco-Thymoline on the mucous membranes is soothing and distinctly exosmotic, increasing the capillary circulation."—New York Medical Journal, Jan. 9, 1904.

DIABETES MELLITUS AND ITS TREATMENT.

The author, having made a life study of this disease, says the direct cause of death from diabetes is acid intoxication and coma. Certain signs present themselves a long time before coma is established and acetone and diacetic acid can be detected in the urine, the former appearing first, followed by diacetic acid and this later followed by oxybutyric acid. When diacetic acid is found in the urine of diabetics it is always a symptom of grave import and its occurrence may be looked upon as a probable forerunner of diabetic coma and rapid death. Experiments show that acid intoxication produced by an exclusive meat diet disappears when carbo-hydrates are eaten. After the carbo-hydrates and proteids are excluded the fats remain the main source of acid intoxication. In the treatment the first step is to keep the patient from taking cold, avoid all fatigue, drink water freely, with large qualtities of bicarbonate of soda, colonic flushings and laxatives. As a preventive to the formation of acetone he had found a urinary bactericide of great importance, and for this purpose he used uriseptin, a solution of lithium methaminate in conjunction with corn silk and couch grass. The absence of ammonia in this preparation makes it of vital importance in certain forms of diabetes, such as cerebo-diabetes.—James H. Reed, A. M., M. D., of Battle Creek, Mich.

[Uriseptin is also indicated in pyelitis, nephritis, gonorrhea, cystitis and all other inflammatory conditions of the urinary tract.]

ADRENALIN IN THE TREATMENT OF THE CARDIAC TOXEMIA OF PNEUMONIA.

The writer, Henry L. Elsner, M. D., of Syracuse, N. Y. (New York Medical Journal, Jan. 2, 1904), directs attention to the appalling mortality of pneumonia due to the resulting cardiac toxemia. The prime factor in this disease is a toxemia with obstruction in the pulmonary circuit, leading to cardiac asthenia. Marked changes occur in the right half of the heart, with far-reaching degenerative changes in the muscle, heart-clots, and vasomotor paralysis. Three remedies meet the indications presented by the circulatory changes due to paralysis of the vasomotor centers, the dilated condition of the arteries and the weakened heart. These are strychnine, digitalis and suprarenal extract, or Adrenalin, its active principle. Adrenalin acts on the heart and blood-vessels favorably; it does not act on the vasomotor center. Hence, it may be used to assist strychnine. When the vasomotor center is exhausted and blood-pressure study proves the inefficiency of strychnine, Adrenalin may still be administered, and, in some cases which seem unpromising, when combined with the method of stimulation about to be suggested, we may carry the patient beyond the critical period to a safe recovery. Suprarenal extract, or Adrenalin, has seemed to the author to act as a needed food in all infections where there is danger of myocardial degeneration. He reports a case of pneumonia, in a woman, the mother of five children, in whom it had been impossible to raise a continually lowering blood-pressure with strychnine. The systolic blood-pressure was almost immediately raised by the repeated administration at short intervals of 15 minims of a 1 to 1000 solution of Adrenalin hypodermatically, and the patient was saved.

PNEUMONIA

It is an important point in the treatment of pneumonia to reduce the dyspnea and irritating cough.

This may be done without internal medication and without disturbing the patient, by the use of Vaporized Cresolene.

Vaporized Cresolene has a marked sedative influence on all diseases of the respiratory organs attended with irritation and a spasmodic element.

Literature on application.

THE VAPO-CRESOLENE CO.

180 FULTON ST., NEW YORK.

ETHICS AND ART.

From its introduction to the present day Tyree's Antiseptic Powder has been purveyed only through strictly ethical channels. The formula has been freely published, of which fact certain unprincipled pharmacists have taken undue advantage. They have fostered the impression, in certain sections, that Tyree's Powder can be prepared extemporaneously for filling prescriptions. Nothing could be more erroneous than this, since the manufacture of Tyree's Antiseptic Powder requires special apparatus, and a batch can not be properly made in less than five days. One hundred pounds each of borax and alum are fused together and dehydrated in a proper crucible. The resulting irregular masses are then ground to the desired degree of fineness in a special mill, the remaining ingredients added and other special machinery utilized to secure uniform dissemination. The elaborate chemical process determines, in a large measure, the phenominal success attending the use of this powder. If a druggist had the requisite machinery, the time required by process would be too long for routine prescription work. Mortar and pestle can not take the place of crucible, furnace and special mills. Every effort at such substitution must of necessity invite inferior, if not injurious, clinical results. To insure uniformly excellent results always specify very plainly Tyree's, and whenever possible utilize only original packages.

The Family Laxative

THE ideal safe family laxative, known as "SYRUP OF FIGS," is a product of the California Fig Syrup Co., and derives its laxative principles from senna, made pleasant to the taste, and more acceptable to the stomach, by being combined with pleasant aromatic syrups and the juice of figs. It is recommended by many of the most eminent physicians, and used by millions of families with entire satisfaction. It has gained its great reputation with the medical profession by reason of the acknowledged skill and care exercised by the California Fig Syrup Co. in securing the laxative principles of the senna by methods of its own, and presenting them in the best and most convenient form.

The California Fig Syrup Co. has special facilities for commanding the choicest qualities of Alexandria senna, and its chemists devote their entire attention to the manufacture of the one product.

The name "SYRUP OF FIGS" means to the medical profession the "family laxative, manufactured by the California Fig Syrup Co.," and the name of the company is a guarantee of the excellence of its product.

Informed of the above facts, the careful physician will know how to prevent the dispensing of worthless imitations when he recommends or prescribes the original and genuine "SYRUP OF FIGS."

It is well known to physicians that "SYRUP OF FIGS" is a *simple*, *safe*, and *reliable* laxative, which does not irritate or debilitate the organs on which it acts, and, being pleasant to the taste, it is specially adapted to ladies and children, although generally applicable in all cases. Special investigation of the profession invited.

"SYRUP OF FIGS" is never sold in bulk. It retails at fifty cents per bottle, and the name "SYRUP OF FIGS," as well as the name of the California Fig Syrup Company, is printed on the wrappers and labels of every bottle.

CALIFORNIA FIG SYRUP COMPANY

San Francisco, Cal.; Louisville, Ky.; New York, N. Y.

UNIVERSITY OF ILLINOIS-URBANA
3 0112 110878664